STOCKTON-ON-TEES, CORPORATION

# REPORT

OF THE

# Medical Officer of Health

TO THE

TOWN COUNCIL FOR THE

YEAR 1933

G. C. M. M'Gonigle, M.D., D.Hy., B.S., D.P.H.,
Medical Officer of Health :
Medical Superintendent of Isolation Hospital :
School Medical Officer

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# BOROUGH OF STOCKTON-ON-TEES

# TOWN COUNCIL

His Worship the Mayor (Alderman C. W. Allison). *

Alderman G. H. Douthwaite*
„ J. W. Gargett, J.P.†
*Chairman Maternity and Child Welfare Committee*
Alderman J. Goldston*
„ W. Newton

Alderman E. Pickworth, J.P.
„ J. Riley
„ W. J. Scaife*†
„ R. Spark, J.P.*
*Chairman Health Committee*
Alderman W. Thompson
„ W. Wake*

Councillor C. Atkin
„ C. R. Booth †
„ H. Bridges, J.P.
„ W. Brown
„ T. Bulmer*†
„ T. W. Coates*†
„ A. Collyer†
„ D. H. Davis
„ H. Dixon* †
„ J. Gardner
„ J. Gibbons*
„ R. Gibson*†
„ H. Haxby
„ H. Hodgson
„ W. F. Tyson Hodgson
„ J T Johnson*
„ M. M. Kelly*

Councillor Revd. G. J. Lane*†
„ A. Lewis*
„ W. Lillystone
„ G. R. McLean
„ W. J. E. Ringquist
„ B. S. Robson
„ A. Ross
„ J. Sharkey
„ R. B. Simpson
„ A. Smith†
„ J. Stoddart*†
„ A. J. Thatcher
„ G. Thornton
„ T. A. Westwater
„ J. E. Wilyman
„ W. M. Worth

*Members of the Health Committee. †Members of the Maternity and Child Welfare Committee.

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# PUBLIC HEALTH OFFICERS OF THE LOCAL AUTHORITY.

## Medical.

| | |
|---|---|
| G. C. M. M'Gonigle, M.D., D.Hy., B.S., D.P.H., Medical Officer of Health, School Medical Officer, Medical Superintendent of the Isolation Hospitals, Medical Superintendent of Robson Maternity Home and Inspector of Midwives ... | Whole time |
| W. M. Ritchie, M.B., Ch.B., (Medical Practitioner), Deputy Medical Officer of Health, and Assistant Maternity and Child Welfare Medical Officer, | Part time |
| A. Gompertz, M.R.C.S., L.R.C.P., (Medical Practitioner), Assistant Maternity and Child Welfare Medical Officer. ... | Part Time |
| T. J. Kirk, M.B., (Medical Practitioner), Assistant Maternity & Child Welfare Medical Officer ... | Part time |
| E. B. G. Ewen, M.B., Ch. B., D.P.H., Assistant School Medical Officer. ... | Whole time |

## Sanitary Staff.

| | |
|---|---|
| E. G. Power, A.R.S.I., Senior Sanitary Inspector | Whole time |
| J. Kirby, M.R.S.I., M.I.S.E., Cert. San. Ins. Jt. Bd., Meat and Food Cert. R.S.I., San. Sc. R.S.I., Sanitary Inspector ... | Whole time |
| E. Varley, Cert. San. Ins. Jt. Bd., Meat and Food Cert. R.S.I., Sanitary Inspector ... | Whole time |
| Miss M. Jones, Cert. R.S.I., Sanitary Inspector... | Whole time |

## Tuberculosis Health Visitor.

| | |
|---|---|
| Miss J. Clacherty, General Trained, Cert. C.M.B., H.V. & School Nurse Cert. R.S.I. ... | Whole time |

### Health Visitors.

| | |
|---|---|
| MRS. C. CAMERON, General Trained, Cert. C.M.B., (also Assistant Inspector of Midwives) ... | Whole time |
| MISS L. CATCHPOLE, Cert. C.M.B., H.V. and Sch. Nurse, Cert. R.S.I. ... ... ... | do. |
| MISS B. FIDLER, General Trained, Cert. C.M.B., | do. |
| MISS L. JONES, General Trained, Cert. C.M.B., | do. |
| MISS M. VEITCH, H.V. and Sch. Nurse, Cert. R.S.I. Cert. C.M.B., Board of Education Diploma. | do. |

### School Nurses.

| | |
|---|---|
| MISS M. LAMB, General Trained. ... ... | do. |
| MISS W. WARD, General Trained (Dental Nurse)... | do. |
| MISS M. A. ALTON, General Trained, (School Attendance Nurse) | do. |
| MISS M. A. FIELDS, General Trained ... | do. |

### School Dental Officer.

| | |
|---|---|
| A. E. PATTIE, L.D.S. ... ... ... | do. |

### Veterinary Inspector.

| | |
|---|---|
| S. E. MORTON, M.R.C.V.S. ... ... ... | Part time |

### Clerks.

| | |
|---|---|
| H. KIPLING, Cert. R.S.I., Chief Clerk ... ... | Whole time |
| W. BAKER ... ... ... ... ... | do. |
| MISS J. HALL, School Medical Service ... ... | do. |
| MISS I. PARISH, School Medical Service ... | do. |

### Matron of Isolation Hospitals.

| | |
|---|---|
| MISS E. HODGSON ... ... ... ... | do. |

### Matron of Robson Maternity Home.

| | |
|---|---|
| MISS E. JEFFRIES ... ... ... ... | do. |

Health Department,
11, Finkle Street,
Stockton-on-Tees,
June 20th, 1934

To the Town Council of the Borough of Stockton-on-Tees.

Mr. Mayor and Gentlemen,

I have the honour to submit my Annual Report upon the health of the population of the Borough of Stockton-on-Tees for the year 1933.

The crude death-rate for the year is fractionally lower than that for the previous year. The main variations in the individual causes are as follows:—

There were 10 deaths caused by measles as against five in 1932, but whooping cough was the cause of death in only five cases as against 10 in the previous year. For the second year in succession there was no death from diphtheria. Influenza shows a considerable increase, there being 49 deaths as against 25 for 1932. Tuberculosis of the respiratory system shows no change, 55 persons dying from this disease in each year; but there is a welcome decline in other tuberculous diseases, the number of deaths in 1932 was 19, and in 1933 this has been reduced to seven. There has been a decline in the number of deaths from cancer, the number for 1933 being 84, as against 103 in the previous year. Deaths from diabetes were reduced from 12 in 1932 to four in 1933. Diseases of the circulatory system, including cerebral haemorrhage, heart disease and other circulatory diseases, accounted for 264 deaths in 1932 and 212 in 1933. Respiratory diseases, bronchitis, pnemonia, etc., were responsible for 109 deaths in 1933, which is an increase of 17 over the figure for 1932. Congenital debility, premature birth, malformations, etc., increased from 52 in 1932 to 68 in 1933, while 10 deaths were caused by suicide as against two in the previous year.

There has been a further decline in the birth-rate, this rate being the lowest ever recorded in the Borough, but the infantile mortality rate has increased.

The increase in the infantile death-rate is largely due to the fact that an increasing number of deaths occurred during the first four weeks of life. This fact is commented upon in the section of this report which deals with Maternity and Child Welfare.

The decline in the birth-rate is not due to there being a smaller number of married women of child-bearing age. There are actually a larger number of families of a smaller size. In 1921 the average size of family in the town was 4·53 persons. In 1931 the average size of family had dropped to 4·06.

The decline in the birth-rate brings about a raising of the average age of the population and, as the death-rate rises with age, it is probable that the future will show a corresponding increase in the death-rate.

The problem of housing has occupied much of the time of the Health Department staff. Details of proposed action in connection with slum clearance will be found in the text. It is unfortunate that procedure under the Housing Act with reference to unsatisfactory housing conditions is cumbrous and subject to much delay.

In past reports I have dealt at some length with the subject of nutrition and malnutrition. There is urgent need for a satisfactory standard of what constitutes normal and subnormal nutrition.

Modern communities have cause to be grateful to the advances which civilisation has made throughout the ages. Civilisation has conferred many blessings upon mankind; one of the greatest being our present day organisation of transport. Before land and ocean transport had become available for moving large masses of goods local famines were, due to wars, or failure of crops, serious and not uncommon occurrences. To-day a shortage of food in any part of the world can be made good by carrying foodstuffs by ship or train from regions of plenty, the only controlling factor being one of finance (purchasing power).

There are to-day, therefore (apart from finance), no reasons why an adequate and suitable diet can not be made available for everyone.

It is true, as Napoleon said, that "an army marches on its stomach" and its efficiency is dependent upon its food supply. The efficiency of a nation is similarly determined. The nutritional state of a people determines its health, its physique and its efficiency.

The human body, being an extremely complicated mechanism, requires a great variety of foodstuffs in approximately the correct quantities to function properly and continuously. It can continue to function for long periods, though not efficiently, upon insufficient variety and quantity but the ill effects of such malnutrition are cumulative and render proper growth and resistance to disease unsatisfactory. Nutritionally there appears to have been three main periods in the history of mankind; first there was the flesh eating age of the nomadic hunter, secondly the flesh and dairy produce consuming age of the pastoral peoples, and thirdly the cereal eating age of the advanced civilisations such as that of Egypt of old and England to-day. Unfortunately it is doubtful if man has advanced, physiologically, beyond the pastoral age. Attempts to live contrary to the requirements of a being's physiological capacity are bound to result in disaster.

The disturbance of the physiological balance of our dietary due to small purchasing power, to the relative cheapness of cereals and sugar, and to the comparative expensiveness of animal fats and proteins (particularly dairy produce) and of fresh vegetables, has resulted in a proportion of the people of this country degenerating into what is described as a C3 condition.

It is true that actual starvation is almost unknown in England but a large percentage of the population suffers from a partial starvation of certain elements of an optimum dietary. Every child who has carious teeth has suffered from a shortage of certain mineral and vitamin constituents of an optimum diet Every woman who has suffered a difficult childbirth as a result of a rachitic deformity of the pelvis, has at some period of her childhood been similarly starved.

Certain forms of anaemia are due to insufficient quantities of certain essentials of a physiologically sound diet and the body's resistance to many skin diseases and other infections is dependent upon the continued ingestion of a diet which satisfies the physiological demands of the body.

Factors other than nutritional play their part in the maintenance of health but it is probable that the most important of all factors is that of nutrition.

Propaganda in connection with nutrition should emphasise that a diet, to be sound physiologically, must consist of a large variety of foodstuffs and that from a physiological point of view man has not yet reached a stage of development in which he can depend upon cereal and carbohydrate foods as the main source of his nourishment.

We are handicapped in our attempts to assess the nutritional state of individuals by the absence of a satisfactory standard of what constitutes good nutrition. Height, weight and age tables have a limited usefulness; for they measure the adequacy of a diet from the quantitative aspect only, and cannot assess the effects of a shortage of certain constituents of a dietary which, though not influencing height and weight, yet exert a profound influence upon bodily health.

The purchase of an adequate and satisfactory diet for a family is dependent upon two main factors, viz., a knowledge of what foodstuffs to buy and sufficient money to purchase them. When the money available is insufficient to purchase a satisfactory diet the more expensive items are reduced and it is unfortunate that the expensive items (milk, butter, meat, etc.) are the most valuable.

I have the honour to remain,
Your obedient servant,
G. C. M. M'GONIGLE,
Medical Officer of Health.

## SECTION A.—STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

| | |
|---|---|
| Area (in acres)—Land and Inland Water ... | 5,465 statute acres. |
| Population—At Census 1931 ... ... ... | 67,724 |
| Estimated by Registrar General, June 1933... ... | 66,980 |
| Number of inhabited houses (end of 1933) according to the Rate Books ... ... ... ... ... | 15,542 |
| Rateable value of the Borough ... ... ... | £295,016 |
| Sum represented by penny rate ... ... ... | £1,115 |

**Social Conditions.** I am pleased to be able to be able to report a reduction in the number of men on the unemployed registers during the year 1933. Two counts of the number of Stockton men on the registers were taken, one early in 1933 and one at the beginning of 1934, the figures being as follows:—

| | |
|---|---|
| April 24th, 1933 ... | 8,497 |
| January 22nd, 1934 ... | 7,206 |

Both these figures are less than the figure for 1932 which was 8,783. The approximate number of cases in receipt of out-relief, however, shows an increase from 2,000 to 2,316.

Apart from the increase in the number of men who have found employment there has been little change in the social conditions of the people.

The Mayor's Committee for the Unemployed continues to carry out a useful social service by providing allotments for the unemployed, the provision of boot-repairing shops and rest rooms, and the organisation of sports. A clothing bureau is also conducted in co-operation with the Personal Service League and a considerable quantity of clothing is distributed annually. A scheme for the provision of a mid-day meal, or milk, for school children from necessitous families was put into operation during the year and is a much appreciated addition to the social services of the Borough.

## EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

**Live Births :—**

| | | | | Rate per 1000 of population | |
|---|---|---|---|---|---|
| | No. | Males | Females | 1933 | 1932 |
| Legitimate | 1142 | 618 | 524 | 17·05 | 18·91 |
| Illegitimate | 58 | 29 | 29 | 0·86 | 0·92 |
| Total | 1200 | 647 | 553 | 17·91 | 19·83 |

**Still-births :—**

| | | | Rate per 1000 Total Births. | |
|---|---|---|---|---|
| No. | Males | Females | 1933 | 1932 |
| 51 | 27 | 24 | 40·76 | 38·10 |

**Deaths :—**

| | | | Rate per 1000 of population | |
|---|---|---|---|---|
| Total | Males | Females | 1933 | 1932 |
| 852 | 459 | 393 | 12·72 | 12·76 |

**Deaths from Puerperal Causes.**

| | | Rate per 1000 total Births | |
|---|---|---|---|
| | No. | 1933 | 1932 |
| Puerperal Sepsis | 1 | 0 80 | 1·43 |
| Other Puerperal Causes | 6 | 4·79 | 2·87 |
| Total | 7 | 5·59 | 4·31 |

**Infantile Mortality :—**

| | No. of Deaths | |
|---|---|---|
| | 1933 | 1932 |
| Legitimate ... ... ... ... | 113 | 98 |
| Illegitimate ... ... ... ... | 3 | 6 |
| Totals | 116 | 104 |

Death-rates of Infants under one year of age :—

| | 1933 | 1932 |
|---|---|---|
| All infants per 1,000 live births ... ... | 96 | 77 |
| Legitimate infants per 1,000 legitimate live births | 98 | 77 |
| Illegitimate do illegitimate do | 51 | 97 |

| | 1933 | 1932 |
|---|---|---|
| Deaths from Measles (all ages) ... ... | 10 | 5 |
| Deaths from Whooping Cough (all ages) ... | 5 | 10 |
| Deaths from Diarrhoea (under two years) ... | 8 | 8 |

The following Table shows the six principal causes of death during the year, compared with the figures for the previous year and with the average for the five year period 1926-1930.

| | 1933. | 1932. | Average 1926-30. |
|---|---|---|---|
| Heart Disease ... | 147 | 171 | 129 |
| Cancer ... ... | 84 | 103 | 79 |
| Pneumonia ... ... | 80 | 62 | 115 |
| Congenital Debility ... | 68 | 52 | 50 |
| Tuberculosis (all forms) | 55 | 55 | 85 |
| Influenza ... ... | 49 | 28 | 34 |
| Totals | 483 | 471 | 492 |

These six causes of death were responsible for 56·8% of the total deaths registered in the Borough during the year.

There were large increases during the year in the number of deaths from Influenza and Pneumonia which were very prevalent in the early part of the year.

Deaths from Tuberculosis again show a large reduction on the average number for the last five year period (1926-30).

## SECTION B.—GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

A complete survey of the health services of the Borough was given in my annual report for the year 1930, and in order to minimise duplication, only changes in the arrangements described in that report are mentioned here.

(a) Laboratory Facilities
(b) Ambulance Facilities
(c) Nursing in the Home
(d) Hospitals

} No change.

**(d) Clinics and Treatment Centres.** An extra weekly session at No. 3 Maternity and Child Welfare Centre which is held in the Paradise Row Methodist Sunday School Room, was commenced on December 11th, 1933. This session is held in the morning and there is no medical officer in attendance, the centre being conducted by the health visitor.

An additional ante-natal centre was opened on April 11th, 1933, at the Robson Maternity Home. This centre holds fortnightly sessions and a medical officer is in attendance.

With the exception of the above additonal sessions at Child Welfare Centres, there has been no change in the services provided under the following heads.

(i) Midwifery and Maternity Services.
(ii) Institutional Provision for Mothers or Children.
(iii) Health Visitors.
(iv) Infant Life Protection.
(v) Orthopaedic Treatment.

## SECTION C.—SANITARY CIRCUMSTANCES OF THE AREA.

**Water.** The Borough is supplied with water by the Tees Valley Water Board. This supply has its source in upland gathering grounds near which it is compounded in extensive reservoirs constructed about 30 miles from Stockton in the valleys of the Lune and the Balder, tributaries of the river Tees. The supply is constant and abundant and the quality is good.

The Tees Valley Water Board supply was laid on to three cottages in the Borough during the year which had previously obtained their water supply from shallow wells.

**Rivers and Streams.** The crude sewage of the of the Borough is discharged into the river Tees without treatment. No complaint of nuisance from this source was received during the year.

**Drainage and Sewerage.** 4½ miles of new sewer were completed and put into operation during the year, relieving the existing sewerage system and taking the sewage from a large number of areas which have recently developed.

**Closet Accommodation.** The whole of the houses in the Borough within easy reach of the sewers are now provided with closets on the water carriage system. Two privy middens were converted during the year.

**Public Cleansing.** There has been no extension during the year of the arrangements for public cleansing other than that necessitated by new houses. A weekly collection is made and the refuse is mainly disposed of by tipping, about 90% of the refuse being thus disposed of.

181 ashpans were substituted for ashpits during the year.

## SANITARY INSPECTION OF AREA.

Number and Nature of Inspections made by the Sanitary Inspectors during the year 1933.

| | |
|---|---|
| Investigations made in respect to notifiable disease | 541 |
| Premises disinfected re Infectious disease | 561 |
| Premises disinfected for Vermin | 50 |
| Inspections following complaints | 397 |
| ,, under the Housing Acts | 89 |
| ,, under Public Health Acts | 460 |
| ,, of Offensive Trades | 130 |
| ,, of Workshops and Workplaces | 45 |
| ,, of Factories | 23 |
| ,, of Bakehouses | 57 |
| ,, of Cowsheds | 153 |
| ,, of Dairies and Milkshops | 115 |
| ,, of Stables | 73 |
| ,, of Slaughter-houses | 2527 |
| ,, of Markets and Shops | 1173 |
| ,, of Common Lodging Houses | 91 |
| ,, of Ice Cream Shops | 23 |
| ,, of Fried Fish Shops | 79 |
| ,, in regard to outstanding Notices | 1776 |
| Miscellaneous Inspections | 388 |
| Samples taken for Analysis | 46 |
| ,, taken for Bacteriological Examination | 67 |
| Visits to Houses-let-in-lodgings | 126 |
| ,, to Caravans | 23 |
| ,, re Slum Clearance | 2403 |
| Total | 11.416 |

## NOTICES.

| | Housing | | | Public Health | | |
|---|---|---|---|---|---|---|
| | Prel. | Stat. | Total | Prel. | Stat. | Total |
| Number of Notices outstanding at the end of 1932 ... ... | 40 | 3 | 43 | 27 | 7 | 34 |
| Number of Notices served during 1933 ... ... ... | 71 | 25 | 96 | 402 | 58 | 460 |
| Number of Notices complied with during 1933 ... ... | 81 | 13 | 94 | 387 | 54 | 341 |
| Number of Notices outstanding at the end of 1933 ... ... | 30 | 15 | 45 | 42 | 8 | 50 |

Number of Housing Notices completed by the Borough Engineer (included in the above) 4

## SUMMARY OF WORK DONE UNDER THE PUBLIC HEALTH ACTS.

| Nature o Defects or Nuisances | Number Dis-covered | Informal Notices Served | Statutory Notices Served | Defects or Nuisances Remedied | Notices in Arrear at end of 1932 done in 1933. |
|---|---|---|---|---|---|
| Defective floors .. ... | 53 | 53 | 13 | 49 | 1 |
| Overcrowding ... ... | 1 | 1 | — | 1 | — |
| Dirty houses ... ... | 1 | 1 | — | 1 | — |
| Defective walls ... ... | 116 | 116 | 14 | 84 | 10 |
| Defective roofs ... ... | 136 | 136 | 29 | 106 | 12 |
| Defective eaves gutters ... | 104 | 104 | 20 | 71 | 16 |
| Defective fall pipes ... ... | 57 | 57 | 7 | 45 | 4 |
| Defective yard pavements ... | 46 | 46 | 9 | 31 | 5 |
| Defective plasterwork... ... | 81 | 81 | 18 | 65 | 9 |
| Insufficient water supply ... | 16 | 16 | 3 | 14 | 1 |
| Offensive accumulations ... | 1 | 1 | — | 1 | — |
| Nuisances from animals ... | 1 | 1 | — | 1 | — |
| Improper food stores ... ... | 6 | 6 | — | 6 | 1 |
| Miscellaneous minor defects ... | 304 | 304 | 64 | 237 | 34 |
| Dirty water closets ... ... | 2 | 2 | — | 2 | — |
| Insufficient water supply to W.C.'s | 16 | 16 | 2 | 15 | — |
| Defective soil pipes ... ... | 3 | 3 | — | 2 | 1 |
| Defective flush pipes ... ... | 10 | 10 | 3 | 9 | 1 |
| Defective cisterns ... ... | 24 | 24 | 4 | 19 | — |
| Defective W.C. pedestals ... | 23 | 23 | 4 | 20 | 4 |
| Defective privies ... ... | — | — | — | — | — |
| Defective ashpits ... ... | 58 | 58 | 9 | 55 | 9 |
| Defective pans ... ... | 34 | 34 | 2 | 31 | 7 |
| Defective or blocked drains ... | 127 | 127 | — | 126 | 2 |
| Defective sinks ... ... | 6 | 6 | 1 | 5 | 1 |
| Defective sink wastes... ... | 13 | 13 | 2 | 11 | 1 |
| Defective cellar drainage ... | 9 | 9 | — | 9 | — |

## (1) Inspection of Factories, Workshops and Workplaces.

Including inspections made by Sanitary Inspectors or Inspectors of Nuisances.

| Premises<br>(1) | Inspections<br>(2) | Number of Written Notices<br>(3) | Occupiers Prosecuted<br>(4) |
|---|---|---|---|
| Factories (including Factory Laundries) ... | 24 | 2 | — |
| Workshops (including Workshop Laundries) | 21 | 1 | — |
| Workplaces (other than Outworkers' premises) | 13 | — | — |
| Totals ... | *58 | 3 | — |

## (2) Defects found in Factories, Workshops and Workplaces.

| Particulars<br>(1) | Number of Defects<br>Found<br>(2) | Remedied<br>(3) | Referred to H.M. Inspector<br>(4) |
|---|---|---|---|
| *Nuisances under the Public Health Acts*:— | | | |
| Want of cleanliness ... | 3 | 3 | — |
| Want of ventilation .. | — | — | — |
| Overcrowding ... ... | — | — | — |
| Want of drainage of floors ... | — | — | — |
| Other Nuisances ... ... | 8 | 8 | — |
| Sanitary Accommodation— | | | |
| Insufficient .. ... | 3 | 2 | — |
| Unsuitable or defective ... | 4 | 4 | — |
| Not separate for sexes ... | — | — | — |

| | | | |
|---|---|---|---|
| *Offences under the Factory and Workshop Acts:—* | | | |
| Illegal occupation of underground bakehouse | Nil | | |
| Other offences ... .. (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921). | | | |
| Total ... | 18 | 17 | — |

---

* Most of the Slaughter-houses and Offensive Trade Premises are either Factories or Workshops. Frequeat visits are paid to these premises but the inspections are not included in this figure.

## SPECIAL CLASSES OF PREMISES AND OCCUPATIONS SUBJECT TO CONTROL BY THE LOCAL AUTHORITY.

**Slaughter-houses.** There are twenty-five slaughter-houses in the Borough, five of which are modern structures. These premises are visited regularly by the Inspectors and are kept in a satisfactory condition.

**Offensive Trades.** Permission was given during the year for the establishment of the trade of Tripe Boiling on premises in the Borough and one Tripe Boiling business was transferred to other premises which had been used for the same purpose. Regular visits are paid to these premises. The trades carried on are as follows:—

| | |
|---|---|
| Tripe Boiling only ... ... | 4 |
| Tripe Boiling and Gut Scraping ... | 1 |
| Gut Scraping only ... ... | 1 |
| Fat Boiling ... ... ... | 2 |
| Hide and Skin Factors ... ... | 2 |

**Common Lodging Houses.** There are four common lodging houses in the Borough providing accommodation for 139 single men. Regular visits are paid to these premises to see that the requirements of the byelaws are observed.

**Houses-let-in-Lodgings.** There were 48 houses-let-in-lodgings on the Register at the end of the year. These houses are kept under observation by the Inspectors to see that the byelaws are complied with.

**Tents, Vans, Sheds, etc.** Close observation has been kept on caravans entering the town and strict observance of the byelaws insisted upon. No complaint of nuisance has been received from this source during the year.

**Schools.** No structural alterations were made to the schools during the year. All schools are served by conveniences on the water carriage system which in most cases are of an up-to-date type. The Tees Valley Water Board's supply is laid on to all schools.

During the year 879 children were excluded from school on account of infectious disease. Of this number 331 were actual sufferers from disease of one kind or another, while 548 were contacts. No school or department was closed on account of infectious disease during the year.

## SECTION D.—HOUSING.

The question of slum clearance occupied the attention of the of the Department during the greater part of the year.

Circular 1331 was received from the Ministry of Health in April requesting the Council to submit a programme and time table of slum clearance schemes which would eradicate the slums in the Borough within a period of five years. The area had been surveyed on numerous occasions in the past and as late 1931 a fresh survey of the areas scheduled for demolition in the Borough was made but further action was postponed on account of the need for economy.

The following programme and time table was submitted to the Ministry of Health in September, 1933.

## Programme and Time Table of Action to be taken in 5-year period.

### I.—Clearance Areas.

| Names and Descriptions of all areas in the Authority's district in which clearance is necessary | Number of | | Number of new houses to be provided | Year during which clearance is to be effected and new houses provided |
|---|---|---|---|---|
| | Houses | Persons to be displaced | | |
| No. 1 Riverside Area | 338 | 1754 | 418 | 1934-5 |
| No. 2 Shakespeare Street Area | 73 | 327 | 76 | 1935-6 |
| No. 3 John Street Area | 96 | 412 | 105 | 1935-6 |
| No. 4 Brunswick Street Area | 132 | 546 | 142 | 1936-7 |
| Totals | 639 | 3039 | 741 | — |

### II.—Improvement Areas.

| Names or descriptions of areas | Number of houses to be demolished | | Number of persons to be displaced | | | Number of new houses to be provided | Year during which displacements will be effected and new houses provided |
|---|---|---|---|---|---|---|---|
| | | | From houses demolished | | To abate over-crowding | | |
| | By reason of unfitness | To open out area | By reason of unfitness | To open out area | | | |
| Victoria Ward Area | 300 | 300 | 1500 | 1500 | — | 300 | 1935 to 1938 |
| Totals | 300 | | 1500 | | | 300 | |

### III.—Individual Houses to be dealt with under Section 19 of Act.

| | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | Total |
|---|---|---|---|---|---|---|---|
| Number of individual houses proposed to be demolished under Section 19 | — | 47 | 13 | 29 | | — | 89 |
| Number of persons to be displaced from such houses ... | — | 208 | 50 | 91 | | — | 349 |
| Number of new houses proposed in connection with these displacements ... | — | 47 | 13 | 29 | | — | 89 |

The No. 1 Riverside Area was subsequently divided into two areas, designated the North and South Riverside Clearance Areas and representations were submitted to the Council in December, 1933.

**New Houses.** 388 new houses were erected in the Borough during the year, 162 of which were built with State assistance by the Local Authority.

## HOUSING STATISTICS FOR THE YEAR 1933.

### 1. Inspection of Dwelling-houses during the year :--

| | |
|---|---|
| (1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) ... | 550 |
| (b) Number of inspections made for the purpose . . | 550 |
| (2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 . . ... | 89 |
| (b) Number of inspections made for the purpose ... | 89 |
| (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... ... ... ... ... | — |
| (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ... ... | 89 |

### 2. Remedy of Defects during the year without service of Formal Notices.

| | |
|---|---|
| Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers ... ... ... ... ... | 468 |

### 3. Action under Statutory Powers during the year.

A. Proceedings under Section 17, 18 & 23 of the Housing Act, 1930.

| | |
|---|---|
| (1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ... | 25 |
| (2) Number of dwelling-houses which were rendered fit after service of formal notices :— | |
| (a) by owners ... ... ... ... | 9 |
| (b) by Local Authority in default of owners ... | 4 |

## HOUSING STATISTICS—continued.

| | |
|---|---|
| B. Proceedings under the Public Health Acts. | |
| (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied | 58 |
| (2) Number of dwelling-houses in which defects were remedied after service of formal notices :— | |
| (a) by owners | 54 |
| (b) by Local Authority in default of owners | — |
| C. Proceedings under Sections 19 and 21 of the Housing Act, 1930. | |
| (1) Number of dwelling-houses in respect of which Demolition Orders were made | — |
| (2) Number of dwelling-houses demolished in pursuance of Demolition Orders | — |
| D. Proceedings under Section 20 of the Housing Act, 1930. | |
| (1) Number of separate tenements or underground rooms in respect of which Closing Orders were made | — |
| (2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit | — |

## SECTION E.—INSPECTION AND SUPERVISION OF FOOD.

**Milk Supply.** There were 108 names on the register of retail purveyors of milk at the end of 1933. 15 of these retail milk in the Borough from farms outside and nine retail milk which they produce on farms in the Borough. Visits of inspection are made by the Sanitary Inspectors and a satisfactory standard of cleanliness is maintained.

26 cowkeepers are registered for the production of milk in the Borough, the number of cows on these farms being approximately 400. One farm in the Borough is registered by the Durham County Council for the production of Grade A milk. Within recent years a considerable amount of work has been done under the Milk and Dairies Order, to improve the condition of the cowsheds in the Borough and all are now in a satisfactory sanitary condition. Frequent visits are paid by the Senior Sanitary Inspector at milking times to see that milking is carried out in a cleanly manner, and samples of the milk are taken for bacteriological examination. It is

often difficult to convince a dirty milker that his methods can be improved and during visits to the farms at milking times samples are taken from each milker and passed through a cotton wool filter which retains the dirt and it is possible to illustrate to the dirty milker his results in comparison with those of clean milkers.

An inspection of the cows on the registered farms in the Borough is made twice yearly under the Milk and Dairies Order by the Durham County Council Veterinary Inspector and the following is a copy of his report.

| | |
|---|---|
| No. of visits to cowkeepers ... | 52. |
| No. of cows examined ... | 979. |

General condition and types of cows. On the whole fairly good. Cross shorthorn mainly, a few Fresian and Guernsey.

General cleanliness of cows. Fairly good.

General conditions of sanitation. Good.

Chief methods of milk disposal. Wholesale and retail.

No. of animals slaughtered under Tuberculosis Order.

| | |
|---|---|
| (a) Tuberculosis of the udder or giving T.B. milk | 3 |
| (b) Other forms of Tuberculosis ... ... | 6 |
| Total ... | 9 |
| No. of cases of diseases other than Tuberculosis ... ... | 12 |

## GENERAL OBSERVATIONS.

"The standard of cleanliness was on the whole good, and the cows mostly in good condition in this district. A few old cows were noted, but most of the cows kept within the Borough are a useful type of dairy shorthorn.

Milk samples are taken periodically by the Sanitary Inspector and submitted for bacteriological examination. In most cases the results have been highly satisfactory.

Mr. Power, the Sanitary Inspector, accompanied me on my inspections."

**Bacteriological Examination of Milk.** 67 samples of milk were taken during the year and sent for bacteriological examination. 19 of these were samples of pasteurised milk which are dealt with in another paragraph of the report. The remaining 48 samples were taken from cowkeepers, 46 from farms in the Borough and two in course of delivery in the Borough but produced outside.

The following table shows the results of the bacteriological examination of the samples:—

| No. of Sample | Presence of Bacillus Coli | Presence of Tubercle Bacilli | Total Bacterial Count. |
|---|---|---|---|
| 2 | Positive in 1·0 c.c. | Negative | 3,400 per c.c. |
| 47 | Pos. in 1·0 c.c. | do. | 78,000 do. |
| 52 | Negative | do. | 1,500 do. |
| 3 | Pos. in 0·001 c.c. | do. | 8,200 do. |
| 20 | Pos. in 0·0001 c.c. | do. | 146,100 do. |
| 24 | Pos. in 0·001 c.c. | do. | 190,000 do. |
| 4 | Negative | do. | 7,800 do. |
| 45 | Pos. in 0·01 c.c. | do. | 126,900 do. |
| 50 | Pos. in 0·01 c.c. | do. | 58,000 do. |
| 5 | Negative | do. | 20,650 do. |
| 44 | Pos. in 0·001 c.c. | do. | 89,300 do. |
| 49 | Pos. in 0·001 c.c. | do. | 550,000 do. |
| 65 | Pos. in 0·01 c.c. | do. | 57,250 do. |
| 8 | Negative | do. | 17,450 do. |
| 21 | Pos. in 0·1 c.c. | do. | 290,000 do. |
| 25 | Negative | do. | 8,600 do. |
| 37 | Pos. in 1·0 c.c. | do. | 8,350 do. |
| 9 | Pos. in 0·0001 c.c. | do. | 89,900 do. |
| 18 | Pos. in 1·0 c.c. | do. | 440,000 do. |
| 10 | Negative | do. | 14,100 do. |
| 23 | Pos. in 0·1 c.c. | do. | 364,000 do. |
| 27 | Pos. in 1·0 c.c. | do. | 16,300 do. |
| 39 | Pos. in 1·0 c.c. | do. | 1,710 do. |
| 67 | Negative | do. | 20,550 do. |
| 11 | Pos. in 1·0 c.c. | do. | 63,350 do. |
| 36 | Negative | do. | 2,850 do. |
| 68 | Pos. in 1·0 c.c. | Positive | 31,300 do. |
| 15 | Negative | Negative | 9,200 do. |
| 57 | Pos. in 0·1 c.c. | do. | 42,000 do. |
| 16 | Pos. in 1·0 c.c. | do. | 24,800 do. |
| 56 | Pos. in 0·01 c.c. | do. | 91,000 do. |
| 17 | Pos. in 1·0 c.c. | do. | 5,500 do. |
| 22 | Negative | do. | 296,000 do. |
| 26 | Negative | do. | 32,400 do. |
| 38 | Negative | do. | 5,050 do. |
| 66 | Pos. in 0·1 c.c. | do. | 66,000 do. |
| 30 | Pos. in 0·01 c.c. | do. | 154,000 do. |
| 54 | Pos. in 0·1 c.c. | do. | 52,100 do. |
| 31 | Pos. in 0·0001 c.c. | do. | 2,936,000 do. |
| 55 | Pos. in 0·001 c.c. | do. | Uncountable. |
| 60 | Pos. in 0·1 c.c. | do | 35,000 do. |
| 32 | Pos. in 1·0 c.c. | do. | 35,780 do. |
| 61 | Negative | do. | 4,700 do. |
| 33 | Pos. in 1·0 c.c. | do. | 9,700 do. |
| 46 | Pos. in 0·0001 c.c. | do. | 360,000 do. |
| 51 | Pos. in 1·0 c.c. | do. | 6,400 do. |
| 62 | Pos. in 0·1 c.c. | do. | 21,800 do. |
| 63 | Negative | do. | 23,100 do. |

The samples in each of the groups bracketed together were from the same cowkeeper.

With a few exceptions these results are satisfactory. A copy of the result is sent in each case to the cowkeeper concerned and in the majority of cases the farmer makes every effort to produce a clean milk.

**Tuberculosis in Milk.** In addition to the above 48 samples, four samples of pasteurised milk were also sent for biological examination for the presence of tuberculosis. None of the samples of pasteurised milk gave a positive result, and in only one other case during the year was a positive result received.

Immediately on receipt of this result an examination of the cows on the farm was made by the Borough Veterinary Inspector and a suspected cow was isolated and later slaughtered under the provisions of the Tuberculosis Order, 1925.

**The Milk (Special Designations) Order, 1925.** Five licences, four dealers' licences to sell milk as "Certified" and one pasteuriser's licence to sell milk as "Pasteurised," were granted for the year 1933.

19 samples of pasteurised milk were taken during the year and submitted for bacteriological examination. The results of the examination of these samples are given in the following table.

### Samples of Pasteurised Milk.

| No of Sample | Date 1933. | Presence of Bacillus Coli. | Total Bacterial Count. |
|---|---|---|---|
| 1 | Jan. 12th | Positive in 0·1 c.c. | 34,850 per c.c. |
| 6 | Feb. 9th | do. 0·1 c.c. | 68,000 do |
| 7 | Feb. 16th | do. 0·01 c.c. | 40,000 do |
| 12 | Feb. 28th | Negative | 4,400 do |
| 13 | Mar. 14th | do. 0·1 c.c. | 130,700 do |
| 14 | Mar. 21st | do. 0·1 c.c. | 10,600 do |
| 19 | April 5th | do. 0·1 c.c. | 13,400 do |
| 28 | April 26th | Negative | 5,400 do |
| 29 | May 16th | do. 0·1 c.c. | 28,700 do |
| 34 | May 30th | do. 0·001 c.c | 48,500 do |
| 35 | June 14th | do. 0·1 c.c. | 4,000 do |
| 40 | July 4th | do. 0·01 c.c. | 39,400 do |
| 41 | July 18th | do. 0·00001 c.c. | 880,000 do |

| | | | | | |
|---|---|---|---|---|---|
| 43 | Aug. 9th | do. | 0·01 c.c. | 17,050 | per c.c. |
| 48 | Sept. 19th | do. | 0·0001 c.c. | 508,000 | do |
| 53 | Oct. 11th | do. | 0·0001 c.c. | 192,000 | do |
| 58 | Oct. 25th | do. | 0·0001 c.c. | 64,000 | do |
| 59 | Nov. 15th | do. | 0·1 c.c. | 21,900 | do |
| 54 | Dec. 12th | do. | 0·0001 c.c. | 900,000 | do |

Owing to the high bacterial counts of the samples taken towards the end of the year, the Council adjourned consideration of the pasteuriser's application for renewal for one month in order to give the firm an opportunity of carrying out such work to the plant as would materially improve the cleanliness of the milk. The pasteurisers later informed the Council that it had been decided to entirely renew the pasteurising plant and this work is being carried out, the licensee agreeing to the suspension of the licence until the new plant is ready.

**Tuberculosis Order, 1925.** During the year 1933, 11 cows were reported as suspected to be suffering from tuberculosis. Of these seven were reported to be suffering from a chronic cough and showing clinical signs of tuberculosis, three from tubercular udder, and one from tubercular emaciation. All the animals were slaughtered and the post-mortem results showed four to be affected with tuberculosis of the udder and seven to be affected with other forms of tuberculosis, five being advanced cases and two not advanced.

The figures for 1933 compared with those for the two preceding years are as follows.

| | 1933 | 1932 | 1931 |
|---|---|---|---|
| Cases reported ... | 11 | 16 | 9 |
| Number of animals Slaughtered | 11 | 16 | 7 |
| Post-mortem results :— | | | |
| Tuberculosis of the Udder | 4 | 9 | 2 |
| Tuberculosis advanced | 5 | 3 | 4 |
| Tuberculosis not advanced | 2 | 4 | 1 |

**Meat Inspection.** 2527 visits were paid to slaughter-houses during the year in connection with the inspection of meat under the Public Health (Meat) Regulations, 1924, and 21,241 carcases were examined.

The following Tables show the work done under the Regulations during the year and the meat condemned as unfit for food.

Table showing the number of animals killed and inspected and the percentage inspected during the year 1933.

| Animals | | Number Killed | Number Inspected | Percentage Inspected |
|---|---|---|---|---|
| Cattle | ... | 3992 | 3366 | 84 |
| Sheep | ... | 14581 | 11287 | 77 |
| Pigs | ... | 7544 | 6415 | 85 |
| Calves | ... | 271 | 173 | 64 |
| | Total | 26388 | 21241 | 80 |

Table showing the Meat condemned by Inspectors during the year, the total number of animals involved and the percentage to the total number of animals killed.

| Animals | | Carcase and Organs | Part Carcase | Organs | Number of Animals Involved | Percentage to Total Number Killed |
|---|---|---|---|---|---|---|
| Cattle | ... | 6 | 14 | 173 | 121 | 3·03 |
| Sheep | ... | 2 | 4 | 20 | 24 | 0·16 |
| Pigs | ... | 3 | 55 | 21 | 64 | 0·84 |
| Calves | ... | — | — | — | — | — |
| Total | ... | 11 | 73 | 214 | 209 | 0·79 |

Table showing the Meat condemned **for Tuberculosis,** the number of animals involved and the percentage to the total number of animals killed.

| Animals | | Carcase and Organs | Part Carcase | Organs | Number of Animals Involved | Percentage to Total Number Killed |
|---|---|---|---|---|---|---|
| Cattle | ... | 6 | 14 | 145 | 98 | 2·45 |
| Sheep | ... | — | — | — | — | — |
| Pigs | ... | 3 | 55 | 17 | 59 | 0·78 |
| Calves | ... | — | — | — | — | — |
| Total | ... | 9 | 69 | 162 | 157 | 0·59 |

**Slaughter of Animals Act, 1933.** The main provision of this Act, which came into operation on January 1st, 1934, is that which requires all animals in slaughter-houses and knackers yards to be instantaneously slaughtered or stunned before slaughter and that the slaughtering or stunning shall be by mechanically operated instrument, which is defined to include an electrical instrument. This requirement, however, does not include sheep unless the Local Authority apply it by resolution, while goats can be excluded from the provisions of the Section by resolution. Slaughter by a Jew or Mohammedan for his co-religionists is exempt, but as regards the former, only if he is licensed by a Commission which has been established under the Act.

The Act also placed on Local Authorities the duty of licensing slaughtermen and 71 slaughtermen have been licensed by the Stockton-on-Tees Town Council.

The question of the desirability of passing a resolution applying the provisions of Section 1 of the Act to sheep was considered by the Health Committee but unfortunately this was not approved.

**Inspection of Shops, Stalls, and Places where food is prepared.** Regular inspections are made of the foods exposed for sale on the stalls in the markets and periodical visits are paid to all premises where foodstuffs are manufactured, prepared, stored or deposited for the purpose of sale. All the premises were kept in a satisfactory condition and the bakehouses were limewashed at regular intervals. One Inspector is on duty in the market on each market day.

The number of visits paid to these premises during the year is shown below :—

| | |
|---|---|
| Markets and Shops ... | 1173 |
| Slaughter-houses ... ... | 2527 |
| Offensive Trades ... ... | 130 |
| Fried Fish Shops ... ... | 79 |
| Bakehouses ... ... | 57 |
| Dairies and Milkshops ... | 115 |
| Ice Cream Shops ... ... | 23 |
| Total | 4104 |

**Other Foods.** During the year the undermentioned foodstuffs, which were submitted for examination, were condemned as unfit for food and were destroyed.

| | |
|---|---|
| 6 | stones Fish. |
| 27 | stones Beef. |
| 198 | lbs. Chilled Beef. |
| 1 | Hind Leg Frozen Beef. |
| 23 | Rabbits. |
| 38 | boxes Pears. |
| 5 | stones Apples. |

**Action taken under the Food and Drugs (Adulteration) Act, 1928.** During the year 1933, 40 samples were taken under the provisions of the above Act, and submitted to the Public Analyst for analysis.

The number was made up as follows:—

| | |
|---|---|
| New Milk ... ... | 31 |
| Meat Sausage ... | 3 |
| Iodine ... ... | 2 |
| Olive Oil ... ... | 1 |
| Lemon Curd... ... | 1 |
| Potted Meat ... ... | 1 |
| Pressed Beef ... ... | 1 |

Nine of the samples of New Milk were certified to be below standard and one sample of potted meat contained boric acid in contravention of the Public Health (Preservatives, &c., in Food) Regulations, 1925.

The results of the analysis of the nine samples of milk which were below standard, were as follows:—

| No. | Result of Analysis | | Remarks |
|---|---|---|---|
| 3 | Non-fatty solids | 7·99% | Equal to addition of 6% of water. |
| | Fat | 2·90% | |
| 5 | Non-fatty solids | 8·76% | Slight fat deficiency. |
| | Fat | 2·95% | |

| No. | Result of Analysis. | | Remarks. |
|---|---|---|---|
| 6 | Non-fatty solids | 8·37% | Slight deficiency in non-fatty solids. |
| | Fat | 3·45% | |
| 25 | Non-fatty solids | 8·69% | Deficiency in fat of 10% |
| | Fat | 2·70% | |
| 26 | Non-fatty solids | 8·83% | Deficiency in fat of 11·70% |
| | Fat | 2·65% | |
| 27 | Non-fatty solids | 8·54% | Slightly below standard in fat. |
| | Fat | 2·90% | |
| 28 | Non-fatty solids | 8·45% | Equal to addition of 4·90% of water |
| | Fat | 2·95% | |
| | Freezing point | —·520 | |
| 29 | Non-fatty solids | 7·60% | Addition of 9·10% of water and deficient in fat to the extent of 14·60% |
| | Fat | 2·33% | |
| | Freezing point | —·459 | |
| 30 | Non-fatty solids | 8·36% | Slightly deficient in non-fatty solids but freezing point normal for genuine unwatered milk. |
| | Fat | 3·50% | |
| | Freezing point | —·547 | |

Sample No. 3 was purchased from a retailer and Sample No. 5 was later taken from the producer in course of delivery. Both vendors were warned.

Sample No. 25, which showed a deficiency in fat of 10%, was taken from a producer whose farm is outside the Borough. The Inspector for the district in which the farm is situated was requested to take a sample at the farm and this also proved to be below standard in fat. A further sample taken from this producer No. 26, was deficient in fat. In view of these results no action was taken other than drawing the attention of the farmer to the results and requesting him to take steps to bring his milk up to standard.

Sample No. 28, was taken from a retailer in the Borough. Samples were later taken from the wholesaler (No. 29), and the producer (No. 30). Further samples taken from the wholesaler and producer were certified to be of genuine quality. The wholesaler was warned in respect to sample No. 29.

Sample of Potted Meat, No. 36, was certified to contain boric acid to the extent of 0·24% or 16·8 grains per lb. The vendor of this sample had previously been warned against the use of preservatives. No action was taken in the matter as the vendor was seriously ill and subsequently died.

**Chemical and Bacteriological Examination of Food.** The chemical analysis of samples is carried out by the Public Analyst for the County of Durham, at Darlington, while the bacteriological examination of samples is carried out at the Public Health Laboratory of the University of Durham College of Medicine, Newcastle-upon-Tyne.

## SECTION F.—PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

### General.

There was a considerable increase in the number of cases of infectious disease notified during the year. This increase is mainly accounted for by a large increase in the incidence of scarlet fever and also, in a lesser degree, by an increase in the number of cases of pneumonia.

**Scarlet Fever.** The number of cases of scarlet fever increased from 194 in 1932, to 497 in 1933. 267 of these cases occurred during the last quarter of the year. Pressure on the accommodation at the Isolation Hospital was particularly heavy during this period but with few exeptions it was possible to accommodate all cases for which removal to hospital was desirable. There were no deaths from this disease during the year, the cases being, on the whole, of a mild type. The average duration of stay in hospital was one month.

**Diptheria.** The number of cases of diphtheria during the year was again low, 24 being notified as against 21 for the year 1932. All the cases were promptly removed to hospital and anti-toxin administered. There were no deaths from this disease during the year.

**Pneumonia.** The number of cases of pneumonia notified during the year was 117, as against 72 during the previous year. 54 of these occured during the first two months of the year, when there was a considerable epidemic of influenza and respiratory diseases. Influenza is not a notifiable disease and the death returns are the only indication we have of the severity of epidemics. During the first two months of 1933, 30 deaths were registered as being due to pneumonia, 38 to influenza and 8 to bronchitis and other respiratory diseases. The total deaths for the year were 75, 48, and 23 respectively.

The highest death-rate from this group of diseases, per 1000 of population, occurred in the Portrack and Tilery Ward, the rate being 4·1, followed by rates of 2·6, 2·5 and 2·1 per 1000 in the North-West, Parkfield, and South-East Wards respectively. The lowest rate, 1·3 per 1000 occurred in the West End Ward. The deaths from these diseases were almost equally distributed between the sexes. In the case of influenza the majority of the deaths occurred in the later age groups but in the case of pneumonia 36% of the deaths occurred at ages under two years.

Nine cases of bronchitis and pneumonia in infants were admitted to the Isolation Hospital during the year. Six of these recovered and three died.

Owing to pressure on the accommodation at the Isolation Hospital towards the end of the year it was not possible to admit any cases of measles or whooping cough, although it is the practice when accommodation is available to remove those cases of these diseases where the home conditions are unsatisfactory.

Notifications of non-notifiable disease such as measles, whooping cough, chicken pox, mumps, etc., are received from head teachers and the cases are investigated by School Nurses.

Cases of Measles, Whooping Cough, Epidemic Diarrhoea, together with Ophthalmia Neonatorum, Puerperal Fever and Pneumonia, are visited by a Nurse from the District Nursing Association, under agreement with the Corporation, and if necessary, nursing assistance is provided.

No action was taken during the year to provide artificial immunisation in hospitals or schools.

**Disinfection.** All bedding, clothing, etc., from infected houses is removed to the Isolation Hospital for disinfection by superheated steam. Infected premises are disinfected with a formalin spray. During the year 561 premises were disinfected. Disinfectants are provided free for home use.

In addition to the above 50 houses which had become infested with vermin were disinfected with a special fluid.

**Bacteriological Examination.** The following specimens were sent by medical practitioners in the Borough for bacteriological examination during the year 1933.

| Disease Suspected | No. of Specimens Submitted | Number Positive | Number Negative |
|---|---|---|---|
| Diphtheria ... | 31 | 4 | 27 |
| Tuberculosis ... | 186 | 26 | 160 |
| Dysentery ... | 1 | — | 1 |
| Totals ... | 218 | 30 | 188 |

The following specimens were submitted from patients in the Isolation Hospital for bacteriological examination during the year.

Diphtheria swabs 97; positive 25; negative 72

| | |
|---|---|
| Diphtheria virulence test ... ... | 2 |
| Specimens of faeces ... ... ... | 22 |
| Specimens of urine ... ... ... | 4 |
| Specimens of cerebro spinal fluid ... | 3 |
| Blood test (Widal) ... ... ... | 1 |

# NOTIFIABLE DISEASES DURING THE YEAR 1933.

| DISEASE | AGE PERIODS | | | | | | | | | | | | | Cases Admitted to Hospital | DEATHS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Under 1 year | 1 to 2 | 2 to 3 | 3 to 4 | 4 to 5 | 5 to 10 | 10 to 15 | 15 to 20 | 20 to 35 | 35 to 45 | 45 to 65 | 65 and over | TOTAL | | Under 1 year | 1 to 2 | 2 to 3 | 3 to 4 | 4 to 5 | 5 to 10 | 10 to 15 | 15 to 20 | 20 to 35 | 35 to 45 | 45 to 65 | 65 and over | TOTAL |
| SMALL-POX ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| SCARLET FEVER ... ... | ... | 7 | 29 | 34 | 30 | 195 | 110 | 36 | 42 | 12 | 2 | ... | 497 | 485 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| DIPHTHERIA ... ... ... | ... | 1 | ... | 1 | 2 | 2 | 4 | 5 | 7 | 2 | ... | ... | 24 | 23 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| ENTERIC FEVER ... ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| PUERPERAL FEVER ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | 2* | ... | ... | ... | ... | ... | ... | ... | ... | 1* | ... | ... | ... | 1* |
| PUERPERAL PYREXIA ... | ... | ... | ... | ... | ... | ... | ... | 2 | 11 | 1 | ... | ... | 14 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| PNEUMONIA ... ... ... | 3 | 14 | 8 | 10 | 3 | 12 | 3 | 7 | 17 | 12 | 20 | 8 | 117 | 12 | 15 | 12 | 6 | 1 | 2 | 2 | 2 | 1 | 4 | 6 | 11 | 13 | 75 |
| ERYSIPELAS ... ... ... | 1 | ... | ... | ... | ... | 2 | 1 | 3 | 7 | 6 | 12 | 5 | 37 | 9 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| ENCEPHALITIS LETHARGICA | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| POLIOMYELITIS ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | 3 | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | 2† |
| CEREBRO SPINAL FEVER ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | 3† |
| TOTALS ... ... | 4 | 22 | 38 | 45 | 35 | 211 | 120 | 54 | 84 | 34 | 34 | 13 | 694 | 538 | 16 | 12 | 7 | 2 | 3 | 3 | 2 | 1 | 5 | 7 | 11 | 13 | 82 |

* Notified as Puerperal Pyrexia.  † Not notified.

In the following table the number of cases of Infectious Disease (including Tuberculosis) notified each month during the year, is shown.

| Disease | January | February | March | April | May | June | July | August | September | October | November | December | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Smallpox | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Scarlet Fever | 21 | 22 | 10 | 14 | 23 | 21 | 35 | 23 | 61 | 82 | 108 | 77 | 497 |
| Diphtheria | 2 | — | 1 | 2 | 2 | — | 3 | 2 | 1 | 6 | 2 | 3 | 24 |
| Enteric Fever | — | — | 1 | — | — | — | — | 1 | — | — | — | — | 2 |
| Pneumonia | 38 | 16 | 4 | 3 | 15 | 5 | 2 | 4 | 4 | 5 | 8 | 13 | 117 |
| Puerperal Fever | — | — | — | — | — | — | — | — | 1 | — | — | — | 1 |
| Puerperal Pyrexia | — | 2 | 1 | 2 | 3 | 2 | 1 | — | — | 2 | 1 | — | 14 |
| Cerebro Spinal F. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Acute Polio. | — | — | — | — | — | — | — | 1 | — | — | — | — | 1 |
| Acute Enceph. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Enceph. Lethargica | — | — | — | — | — | 1 | — | — | — | — | — | — | 1 |
| Ophth Neonatorum | 1 | — | — | 2 | — | — | 3 | 1 | — | — | 1 | — | 8 |
| Erysipelas | 2 | 3 | 4 | — | — | 1 | 2 | 4 | 5 | 4 | 11 | — | 36 |
| Tuberculosis | | | | | | | | | | | | | |
| —Respiratory | 3 | 10 | 10 | 8 | 7 | 7 | 9 | 3 | 7 | 2 | 4 | 3 | 73 |
| —Other forms | 1 | 3 | 2 | 1 | 2 | 8 | 1 | 2 | 2 | 2 | 3 | 2 | 29 |
| Totals | 68 | 56 | 33 | 32 | 52 | 45 | 56 | 41 | 81 | 103 | 138 | 98 | 803 |

## ISOLATION HOSPITALS.

During the year 1933, 592 patients from the Borough were admitted to the Isolation Hospital, compared with 309, the number for the previous year. A large variety of diseases other than the primary infectious diseases were treated in the hospital during the year, but owing to pressure on the accommodation during the last three months of the year all available beds had to be utilised for cases of scarlet fever.

No case of smallpox occurred during the year and the Smallpox Hospital has therefore not been opened.

The Corporation has agreements with the Billingham Urban District Council and the Stockton Rural District Council, whereby cases from the areas of these Authorities are admitted to the Corporation Isolation and Smallpox Hospitals.

The following table shows the number of admissions to the Isolation Hospital from the different districts catered for during the year 1933.

| Disease | Total | Borough of Stockton | Urban District of Billingham | Rural District of Stockton |
|---|---|---|---|---|
| Scarlet Fever ... ... | 597 | 485 | 98 | 14 |
| Diphtheria ... ... | 46 | 23 | 23 | — |
| Enteric Fever ... ... | 1 | 1 | — | — |
| Cerebo-spinal Meningitis ... | 3 | 1 | 1 | 1 |
| Meningitis .. ... | 1 | — | 1 | — |
| Encephalitis ... ... | 3 | 2 | — | 1 |
| Erysipelas ... ... | 10 | 9 | — | 1 |
| Marasmus ... ... | 35 | 35 | — | — |
| Malnutrition and Pertussis | 3 | 3 | — | — |
| Bronchitis and Pneumonia | 12 | 12 | — | — |
| Diarrhœa ... ... | 9 | 9 | — | — |
| Rickets ... ... | 4 | 4 | — | — |
| Pink Disease ... ... | 2 | 2 | — | — |
| Ophthalmia Neonatorum ... | 1 | 1 | — | — |
| Prematurity ... ... | 1 | 1 | — | — |
| Observation ... ... | 1 | 1 | — | — |
| Puerperal Pyrexia ... | 1 | 1 | — | — |
| Puerperal Sepsis... ... | 2 | 2 | — | — |
| Totals ... ... | 732 | 592 | 123 | 17 |

Further information with regard to the Isolation Hospital is given below :—

| Disease | No of Cases remaining Dec. 31st, 1932 | No. of Cases admitted 1933 | No. of Cases under Treatment 1933 | No. of Cases Dis-charged | No. of Deaths | Per-centage Mortality | No. of Cases remaining Dec. 31st, 1933 |
|---|---|---|---|---|---|---|---|
| Scarlet Fever | 26 | 597 (582) | 623 | 521 | 1 | 0·19 | 101 |
| Diphtheria | 5 | 46 (19) | 51 | 48 | 1 | 4·76 | 2 |
| Enteric Fever | — | 1 | 1 | 1 | — | — | — |
| Cerebro-Spinal Meningitis | — | 3 (2) | 3 | 1 | 2 | 50·0 | — |
| Meningitis | — | 1 | 1 | — | 1 | 100·0 | — |
| Encephalitis | — | 3 | 3 | 2 | 1 | 33·3 | — |
| Erysipelas | — | 10 | 10 | 8 | 2 | 20·0 | — |
| Marasmus | 6 | 35 | 41 | 35 | 6 | 14·6 | — |
| Malnutrition and Pertussis | — | 3 | 3 | 2 | 1 | 33·3 | — |
| Bronchitis and Pneumonia | 4 | 12 | 16 | 15 | 1 | 6·25 | — |
| Diarrhœa | — | 9 | 9 | 6 | 3 | 33·3 | — |
| Rickets | — | 4 | 4 | 4 | — | — | — |
| Pink Disease | — | 2 | 2 | 2 | — | — | — |
| Ophthalmia Neonatorum | — | 1 | 1 | 1 | — | — | — |
| Prematurity | — | 1 | 1 | — | 1 | 100·0 | — |
| Observation | — | 1 | 1 | 1 | — | — | — |
| Puerperal Pyrexia | — | 1 | 1 | 1 | — | — | — |
| Puerperal Sepsis | — | 2 | 2 | 1 | 1 | 50·0 | — |
| Totals | 41 | 732 | 773 | 649 | 21 | 2·86 | 103 |

The figures in brackets denote the number of actual cases only, and the mortality rates are worked on these figures.

Two cases of scarlet fever admitted during 1933, died in January, 1934.

## DAILY NUMBER OF PATIENTS IN HOSPITAL.

| | | |
|---|---|---|
| Maximum number of Scarlet Fever patients | 117 | (Dec. 3rd, 4th, 28th) |
| Minimum do. do. | 17 | (Mar. 31st) |
| Average do. do. | 47·75 | |
| Maximum number of Diphtheria patients | 11 | (Oct. 19th & 20th) |
| Minimum do. do. | — | (June 21st & 25th) |
| Average do. do. | 3·86 | |
| Maximum number of all patients in Hospital | 117 | (Dec. 3rd, 4th, 28th) |
| Minimum do. do. | 19 | (Aug. 26th & 30th) |
| Average do. do. | 58·84 | |

**Notes on Scarlet Fever Cases.** In nine cases admitted to Hospital as Scarlet Fever, the diagnosis was revised as follows.

Tonsillitis 4 ; Erythema 2 ; Measles 2 ; Pneumonia 1.

| | |
|---|---|
| The Maximum number of days spent in Hospital was | 88 |
| The Minimum do. do. | 13 |
| The Average do. do. | 31·56 |

The complications noted on admission were as follows—

| | | |
|---|---|---|
| Adenitis (14 single, 11 double) ... | 25 | (4.88%) |
| Otorrhoea (2 single, 1 double) ... | 3 | (0·58%) |
| Rhinitis ... | 24 | (4·68%) |
| Heart complications— | | |
| Mitrol systolic murmur ... | 21 | (4·49%) |
| Dilation ... | 1 | |
| Irregular ... | 1 | |

Three cases had scalds on neck, arm and leg respectively, on admission.

Two cases had dysentery on admission.

One case had parotitis on admission.

One case had chorea on admission.

One case had cellulitis of knee on admission.

One case had abscess on knee on admission.

The following complications occurred after admission—

| | | |
|---|---|---|
| Otorrhoea (21 single, 17 double) ... | 38 | ( 7·42%) |
| Rhinitis ... | 26 | ( 5·78%) |
| Adenitis (42 single, 13 double) (4 incised) ... | 55 | (11·52%) |

| | | |
|---|---|---|
| Tonsillitis | 17 | ( 3·32%) |
| Nephritis— | | |
| Albuminuria | 13 | ( 3·90%) |
| Heamaturia | 7 | |
| Mastoid disease (Mastoidectomy)<br>(3 single, 3 double)<br>(1 Paracentesis) | 6 | ( 1·17%) |
| Arthritis | 37 | ( 7·22%) |
| Jaundice | 2 | ( 0·39%) |
| Stomatitis | 4 | ( 0·78%) |
| Dacryocystitis | 1 | |
| Conjunctivitis | 1 | |
| Heart complications— | | |
| Irregular action | 13 | ( 4·88%) |
| Dilatation | 4 | |
| Myocarditis | 2 | |
| Endocarditis | 2 | |
| Mitrol systolic murmur | 3 | |
| Tachycardia | 1 | |

Ten cases contracted measles while in hospital.

Four developed measles within one week of admission.

Eight had scarlet fever rashes on the 19th, 10th, 7th, 16th, 19th, 20th and 14th days respectively.

One case contracted measles after being in hospital 24 days and developed a corneal ulcer which perforated and the child was removed to the Sunderland Eye Infirmary for removal of the eye.

Seventy-one cases were given scarlet fever serum. Total quantity 1690 c.c. The results of administering scarlet fever serum were disappointing.

Twelve cases had serum rashes.

Two cases had anaphylaxis after serum.

The fatal case was in hospital 23 days, the cause of death being acute encephalitis after scarlet fever.

There were ten ‘ return ’ cases.

**Notes on Diphtheria cases.** In 27 of the 46 cases admitted as diphtheria the diagnosis was revised as follows—

Tonsillitis 25. Scarlet Fever 2.

The maximum number of days spent in hospital was 75.

The minimum number of days spent in hospital was 31.

The average number of days spent in hospital was 45.9

The Complications noted on admission were as follows:—

| | | | |
|---|---|---|---|
| Adenitis ... ... | 6 | Rhinitis ... ... | 1 |
| Otorrhoea ... ... | 1 | Palatal Paralysis ... | 1 |
| Irregular Cardiac Action | 1 | | |

The following Complications occurred after admission:—

| | | | |
|---|---|---|---|
| Adenitis ... ... | 1 | Palatal Paralysis ... | 6 |
| Bradycardia ... ... | 6 | Pharyngeal Paralysis | 2 |
| Irregular Cardiac Action | 5 | | |

The fatal case was in Hospital seven days and was admitted on the sixth day of the disease.

Antitoxin was given to 34 patients. The total amount given was 310,000 units. The maximum dose was 16,000 units; the average dose being 9,117·7 units.

**Enteric Fever.** There was only one case of Enteric Fever (B. Typhosis). The case was in Hospital 52 days. There was no complication.

**Erysipelas.** Anti-scarletina serum was given to all cases of erysipelas. The two fatal cases were in Hospital seven and ten days respectively. They were children; one aged nine months and the other 14 weeks.

**Cerebro-Spinal Meningitis.** Three cases of this disease were admitted, but in one case the diagnosis was revised to posterior basal meningitis.

One fatal case was in Hospital 11 days. A lumbar puncture was made. Anti-meningococcus serum was given, 20 c.c. intrathecally; 70 c.c. intramuscularly.

The case which recovered was in Hospital 43 days. Lumbar puncture made four times. Anti-meningococcus serum given, 80 c.c. intrathecally and 60 c.c intramuscularly.

The second fatal case was in Hospital two days. The cause of death was certified as Posterior Basal Meningitis.

**Puerperal Sepsis.** The fatal case of this disease was in Hospital twenty-four hours. The patient was in extremis on admission.

**Marasmus and Malnutrition.** The ward set aside for the treatment of these conditions was closed on October 6th owing to the increased number of scarlet fever patients requiring admission.

## CANCER.

84 deaths were registered from this disease during the year, a decrease of 19 on last year's figure. The death-rates from the disease for the five year period 1926-30, and for the years 1931, 1932 and 1933, are as follows—

| | | |
|---|---|---|
| 1926-30 | ... | 1·16 per 1000 of population |
| 1931 | ... | 1·30 per 1000 of population |
| 1932 | ... | 1·52 per 1000 of population |
| 1933 | ... | 1·22 per 1000 of population |

In the following table the deaths from the disease are shown according to the sex and age period and according to the site affected—

| Site | MALES | | | | | | FEMALES | | | | | | Total Deaths |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 25—35 | 35—45 | 45—55 | 55—65 | 65 and over | Total | 25—35 | 35—45 | 45—55 | 55—65 | 65 and over | Total | |
| Buccal Cavity and Pharynx | — | — | — | 5 | 5 | 10 | — | — | — | — | — | — | 10 |
| Digest. Organs & Peritoneum | — | 1 | 6 | 11 | 9 | 27 | 1 | 2 | 4 | 9 | 8 | 24 | 51 |
| Respiratory Organs | — | — | 1 | 1 | — | 2 | — | — | — | — | — | — | 2 |
| Uterus | — | — | — | — | — | — | — | — | 5 | 2 | 2 | 9 | 9 |
| Breast | — | — | — | — | — | — | — | — | 3 | — | 2 | 5 | 5 |
| Male genito-urinary organs | -- | — | — | 1 | — | 1 | — | — | — | — | — | — | 1 |
| Other Sites | — | — | — | 1 | 1 | 2 | — | — | 1 | 1 | — | 2 | 4 |
| Totals | — | 1 | 7 | 19 | 15 | 42 | 1 | 2 | 13 | 12 | 12 | 40 | 82 |

The Registrar General's figures are 84 deaths—43 males, and 41 females.

## PREVENTION OF BLINDNESS.

No action was taken during the year under Section 66 of the Public Health Act, 1925, for the prevention of blindness or for the treatment of persons suffering from any disease or injury of the eyes.

## TUBERCULOSIS.

The following Table shows the number of new cases notified or coming to the notice of the Medical Officer of Health and the number of deaths from the disease during the year 1933.

| | New Cases. | | | | | | | Deaths. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age Periods | Pulmonary | | | Non-Pulmonary | | | Total New Cases | Pulmonary | | | Non-Pulmonary | | | Total D'ths |
| | M | F | Tot. | M | F | Tot. | | M | F | Tot. | M | F | Tot. | |
| 0-1 | — | — | — | 1 | — | 1 | 1 | — | — | — | — | 1 | 1 | 1 |
| 1-5 | — | 3 | 3 | — | 3 | 3 | 6 | — | 1 | 1 | 2 | — | 2 | 3 |
| 5-10 | — | 1 | 1 | 2 | 7 | 9 | 10 | 1 | 3 | 4 | 1 | 1 | 2 | 6 |
| 10-15 | 1 | — | 1 | 2 | 3 | 5 | 6 | 1 | — | 1 | — | — | — | 1 |
| 15-20 | 3 | 1 | 4 | 1 | — | 1 | 5 | 2 | — | 2 | — | — | — | 2 |
| 20-25 | 6 | 5 | 11 | — | — | — | 11 | 3 | 1 | 4 | — | — | — | 4 |
| 25-35 | 10 | 13 | 23 | — | 1 | 1 | 24 | 6 | 6 | 12 | — | — | — | 12 |
| 35-45 | 9 | 6 | 15 | 2 | 1 | 3 | 18 | 5 | 8 | 13 | 1 | — | 1 | 14 |
| 45-55 | 9 | 4 | 13 | 1 | — | 1 | 14 | 10 | 3 | 13 | — | — | — | 13 |
| 55-65 | 2 | — | 2 | — | — | — | 2 | 2 | 3 | 5 | — | 1 | 1 | 6 |
| 65 & over | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Totals | 40 | 33 | 73 | 9 | 15 | 24 | 97 | 30 | 25 | 55 | 4 | 3 | 7 | 62 |

The number of new cases of pulmonary tuberculosis notified or coming to the notice of the Medical Officer of Health increased from 64 in 1932 to 73 in 1933, while the non-pulmonary cases decreased from 34 to 24. The deaths, in the case of pulmonary tuberculosis, namely 55, was the same as last year's figure, whilst the deaths from the non-pulmonary types of the disease decreased from 19 to 7, a reduction of 65%. The total deaths from the disease decreased from 74 in 1932 to 62 in 1933.

The highest death-rate from pulmonary tuberculosis occurred in the South-East Ward, the rate being 1·6 per 1000 of population, followed by the North-West Ward with a rate of 1·5 and the Portrack and Tilery Ward with 1·1. No deaths at all occurred in the Parkfield Ward and only two each in the Station and Central Wards.

The average death-rates from pulmonary and non-pulmonary Tuberculosis and the average death-rate from all forms of the disease for the five year period 1926–1930, and corresponding rates for the years 1931, 1932, and 1933, are shown in the following Table :—

**Tuberculosis Death-rates.**

| Year | Pulmonary | Non-Pulmonary | All Forms |
|---|---|---|---|
| 1926-30 (Average) | 0·88 | 0·36 | 1·24 |
| 1931 | 0·70 | 0·29 | 0·99 |
| 1932 | 0·80 | 0·29 | 1·09 |
| 1933 | 0·82 | 0·10 | 0·92 |

It will be observed that while the pulmonary rate remains fairly level, the non-pulmonary rate shows a tendency to fall and the exceptionally low rate for the year 1933 is most encouraging.

The ratio of non-notified tuberculosis deaths, i.e., cases not notified before death, to the total deaths from the disease, was 1 to 6·2.

No action was taken during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, or the Public Health Act, 1925, Section 62.

## OPHTHALMIA NEONATORUM.

Eight cases of this disease were notified during the year. The result of treatment of these cases is shown in the following table—

| Number of cases notified. | Cases Treated at Home. | in Hospital. | Vision un-impaired. | Vision impaired. | Total Blindness. | Deaths |
|---|---|---|---|---|---|---|
| 8 | 7 | 1 | 7 | — | — | 1 |

The case shown as treated in Hospital was treated in the Isolation Hospital. All the cases treated at home were kept under supervision by the District Nursing Association staff until the condition had cleared up.

## SECTION G.—MATERNITY AND CHILD WELFARE.

In the two following tables statistics showing the attendances at the Child Welfare Centres are given. The total attendances for the year again shows an increase, the figures for the years 1933 and 1932 being 27,343 and 25,476 respectively. The average attendance per session for the year was 76·59 as compared with 74·79 for the previous year.

The number of medical consultations for the year was 10,105, an increase of 44 on last year's figure. The average number of medical consultations per session at Child Welfare Centres was 32 and at Ante-Natal Centres 11.

Owing to the congestion at No. 3 Child Welfare Centre which is held at the Paradise Row Methodist Sunday School on a Monday afternoon, an additional session was commenced in December, 1933. This session is held once weekly on Monday mornings, a Health Visitor being in attendance but no Medical Officer.

To cater for the large population residing in the South-West portion of the town, an additional Ante-Natal Centre was opened at the Robson Maternity Home, on April 11th, 1933. Sessions are held fortnightly, a medical practitioner who has had considerable experience in this work being in attendance.

The Medical Officer of Health attends four Child Welfare Centres and one Ante-Natal Centre each week.

One Child Welfare Centre is attended weekly by Dr. W. M. Ritchie and one by Dr. A. Gompertz. (Both of these gentlemen are employed part time only).

Dr. T. J. Kirk attends one Ante-Natal Centre fortnightly.

## ATTENDANCES AT CENTRES, 1933. TABLE 1.

| Months | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | Ante-natal | | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | | | No. 1 | No. 2 | |
| January ... | 395 | 735 | 413 | 269 | 205 | 105 | — | 2122 |
| February ... | 382 | 775 | 441 | 255 | 212 | 132 | — | 2197 |
| March ... | 544 | 840 | 470 | 397 | 325 | 151 | — | 2727 |
| April ... | 394 | 686 | 380 | 280 | 184 | 74 | 5 | 2003 |
| May ... | 488 | 1046 | 562 | 284 | 243 | 107 | 20 | 2750 |
| June ... | 399 | 619 | 365 | 342 | 295 | 112 | 33 | 2165 |
| July ... | 353 | 912 | 563 | 265 | 224 | 99 | 18 | 2434 |
| August ... | 381 | 573 | 311 | 244 | 226 | 107 | 16 | 1858 |
| September ... | 359 | 821 | 502 | 265 | 330 | 72 | 24 | 2373 |
| October ... | 363 | 1044 | 592 | 315 | 258 | 84 | 26 | 2682 |
| November ... | 403 | 827 | 469 | 389 | 258 | 105 | 26 | 2477 |
| December ... | 225 | 576 | 290 | 169 | 206 | 60 | 29 | 1555 |
| Total ... | 4686 | 9454 | 5358 | 3474 | 2966 | 1208 | 197 | 27343 |
| Total 1932 ... | 4739 | 8827 | 4759 | 3343 | 2540 | 1268 | — | 25476 |
| Average Attendance per Session, 1933 | 93·72 | 102·76 | 114·00 | 69·48 | 59·32 | 24·16 | 19.44 | 76·59 |
| Average Attendance per Session, 1932 | 94·78 | 93·90 | 99·14 | 66·86 | 50·80 | 25·36 | — | 74.79 |

Excluding the Ante-Natal Centre, the average attendance per session was 89·75.

## ATTENDANCES AT CENTRES, 1933. TABLE 2.

|  |  | INFANTS |  |  |  |  |  | ANTE-NATAL ATTENDANCES |  |  | TOTAL ATTENDANCES |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | PRIMARY |  |  | REPEAT |  |  |  |  |  |  |  |
| Month | No. of Births Notified | Under 1 yr. | Over 1 yr. | Total | Under 1 yr. | Over 1 yr. | Total | Primary | Repeat | Total | 1933 | 1932 |
| Jan. | 98 | 82 | 15 | 97 | 824 | 1096 | 1920 | 29 | 76 | 105 | 2122 | 2110 |
| Feb. | 93 | 70 | 16 | 86 | 872 | 1107 | 1979 | 32 | 100 | 132 | 2197 | 2384 |
| March | 100 | 70 | 20 | 90 | 1121 | 1365 | 2486 | 28 | 123 | 151 | 2727 | 2023 |
| April | 98 | 58 | 6 | 64 | 853 | 1007 | 1860 | 15 | 64 | 79 | 2003 | 2134 |
| May | 136 | 97 | 13 | 110 | 1171 | 1342 | 2513 | 31 | 96 | 127 | 2750 | 2028 |
| June | 114 | 64 | 4 | 68 | 931 | 1021 | 1952 | 18 | 127 | 145 | 2165 | 2331 |
| July | 114 | 72 | 15 | 87 | 1120 | 1110 | 2230 | 24 | 93 | 117 | 2434 | 2091 |
| Aug. | 102 | 53 | 10 | 63 | 843 | 829 | 1672 | 20 | 103 | 123 | 1858 | 1861 |
| Sept. | 89 | 73 | 17 | 90 | 1036 | 1151 | 2187 | 16 | 80 | 96 | 2373 | 2145 |
| Oct. | 85 | 68 | 19 | 87 | 1154 | 1331 | 2485 | 23 | 87 | 110 | 2682 | 2314 |
| Nov. | 99 | 42 | 8 | 50 | 1022 | 1274 | 2296 | 20 | 111 | 131 | 2477 | 2253 |
| Dec. | 132 | 35 | 5 | 40 | 642 | 784 | 1426 | 17 | 72 | 89 | 1555 | 1802 |
| Total | 1260 | 784 | 148 | 932 | 11589 | 13417 | 25006 | 273 | 1132 | 1405 | 27343 | 25476 |
| **1932** | 1379 | 836 | 198 | 1034 | 11931 | 11243 | 23174 | 268 | 1000 | 1268 | 25476 | — |

## HOME VISITS PAID BY HEALTH VISITORS, 1933.

| Months | To Infants under 1. First Visits | To Infants under 1. Total | To Children. 1–5 Total | To expectant Mothers First Visits | To expectant Mothers Total | Total Visits Paid 1933 | Total Visits Paid 1932 |
|---|---|---|---|---|---|---|---|
| January | 96 | 333 | 434 | 8 | 17 | 784 | 1142 |
| February | 81 | 309 | 565 | 16 | 34 | 908 | 1372 |
| March | 89 | 453 | 912 | 24 | 54 | 1419 | 1301 |
| April | 103 | 439 | 742 | 23 | 50 | 1231 | 1449 |
| May | 120 | 484 | 974 | 29 | 55 | 1513 | 1264 |
| June | 92 | 378 | 652 | 15 | 50 | 1080 | 1438 |
| July | 91 | 344 | 722 | 25 | 49 | 1115 | 1412 |
| August | 96 | 420 | 800 | 16 | 35 | 1255 | 933 |
| September | 83 | 339 | 744 | 23 | 47 | 1130 | 1131 |
| October | 81 | 351 | 785 | 20 | 48 | 1184 | 1259 |
| November | 76 | 405 | 945 | 18 | 37 | 1387 | 1339 |
| December | 77 | 334 | 777 | 18 | 47 | 1158 | 1396 |
| Total 1933 | 1085 | 4589 | 9052 | 235 | 523 | 14,164 | 15,436 |
| Total 1932 | 1194 | 5304 | 9709 | 198 | 423 | 15,436 | — |

## INFANT MORTALITY.

116 infants died during the year before reaching the age of one year. 42 of these, or 36% of the total died before reaching the age of one week and an additional 14 died between the ages of one week and one month, giving a total of 56 deaths, or 48% of the total, at ages under four weeks. 52% of these deaths were the result of premature birth. 60 deaths occurred between the ages of four weeks and 12 months. It is surprising to find that although pneumonia, influenza and other respiratory diseases accounted for 146 of the total deaths in the Borough during the year, only 15 deaths of infants under one year were registered as being due to these causes. This figure is well below the average. The deaths registered as being due to premature birth, however, are considerably above the average.

The birth-rate, the neo-natal mortality rate (deaths under four weeks) and the infantile mortality rate (deaths under one year) for the past three years, compared with the average rates for the five year period 1926 to 1930 are as follows :—

| | | Birth-rate | Neo-natal mortality rate | Infantile death-rate |
|---|---|---|---|---|
| 1933 | ... | 17·91 | 46 | 96 |
| 1932 | ... | 19·83 | 32 | 77 |
| 1931 | ... | 19·92 | 34 | 79 |
| 1926-1930 | ... | 21·64 | 35 | 85 |

The birth-rate is the lowest ever recorded in the Borough while the neo-natal mortality rate is the highest recorded since 1919.

## INFANT MORTALITY.

Net Deaths from stated causes at various ages under 2 years of age, 1933

| CAUSES OF DEATH | Under 1 Week | 1-2 Weeks | 2-3 Weeks | 3-4 Weeks | Total under 4 weeks | 4 weeks and under 3 months | 3 months and under 6 months | 6 months and under 9 months | 9 months and under 12 months | Total deaths under 1 Year | 12 months and under 15 months | 15 months and under 18 months | 18 months and under 21 months | 21 months and under 24 months | Total deaths under 2 years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diphtheria ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Measles ... ... ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | 2 | 2 | 1 | ... | ... | 5 |
| Whooping Cough ... ... | ... | ... | ... | ... | ... | ... | 1 | 1 | 1 | 3 | 1 | ... | ... | ... | 4 |
| Tuberculous Meningitis ... | ... | .. | .. | ... | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | 1 |
| Abdominal Tuberculosis ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 |
| Other Tuberculous Diseases ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 |
| Convulsions ... ... | 4 | ... | ... | 1 | 5 | 2 | 1 | 1 | 2 | 11 | 1 | ... | ... | 1 | 13 |
| Bronchitis ... ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | 1 |
| Pneumonia (all forms) ... | ... | .. | 1 | ... | 1 | 5 | 2 | 4 | 2 | 14 | 4 | 2 | 4 | 2 | 26 |
| Diarrhœa... ... ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | 1 | 1 | 3 |
| Enteritis ... ... .. | ... | ... | ... | 2 | 2 | ... | ... | 2 | ... | 4 | 1 | ... | ... | ... | 5 |
| Gastritis... ... ... | ... | ... | ... | ... | ... | ... | 2 | 1 | 1 | 4 | ... | ... | ... | ... | 4 |
| Syphilis ... ... ... | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 |
| Rickets ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Atelectasis ... ... | 2 | ... | ... | ... | 2 | ... | ... | ... | ... | 2 | ... | ... | ... | ... | 2 |
| Congenital Malformations ... | 5 | ... | ... | 1 | 6 | 2 | 1 | ... | ... | 9 | ... | ... | ... | ... | 9 |
| Premature Birth ... ... | 26 | 3 | ... | ... | 29 | 3 | ... | ... | ... | 32 | ... | ... | ... | ... | 32 |
| Atrophy, Debility, and Marasmus | 1 | 1 | ... | 1 | 3 | 8 | 3 | 3 | ... | 17 | ... | ... | ... | ... | 17 |
| Inanition ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Overlaying ... ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | 1 |
| Want of Attention at Birth ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Violence ... ... ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | 2 | ... | ... | ... | 3 |
| Other Causes ... ... | 4 | 1 | 2 | ... | 7 | ... | 1 | ... | 4 | 12 | 1 | 2 | 1 | ... | 16 |
| TOTALS ... | 42 | 5 | 4 | 5 | 56 | 22 | 12 | 15 | 11 | 116 | 12 | 7 | 6 | 4 | 145 |

**Neo-Natal Deaths.** There is a large annual loss of life and of potential lives due to a group of conditions which we designate as stillbirths, prematurity and congenital debility. Such labels as these tell us nothing as to the causes underlying these unsatisfactory terminations of pregnancy. Clinical examination only very occasionally shows that some definite lesion such as kidney disease or syphilis is responsible. There remains a large number of dead babies for whose deaths no demonstrable physical lesion can be assigned.

An abnormal termination to the physiological condition of pregnancy must be due to some cause. Feeding experiments with domestic animals have shown that if the pregnant animal's diet is deficient in certain constituents, premature birth or stillbirth takes place. We have but little certain knowledge of the effects of similar deficiencies upon pregnant women, but it is not unreasonable to assume the results may be similar. The deficiencies referred to are connected with the mineral and vitamin constituents of the diet.

1200 babies were born alive during 1933 and 56 died within four weeks of birth.

The Health Visitors make inquiries, whenever possible, in all cases of infant deaths, and there is available also the certificates of the causes of death. From these two sources some information may be gleaned as to the causes underlying the deaths of these infants.

Deaths of infants under four weeks which were certified as being due to congenital debility, prematurity, etc., in which no information is available which would throw additional light upon the causes of death numbered ... ... ... 14

We do not know why these babies were premature or feeble and can not state whether their deaths were preventable.

Deaths from congenital deformities incompatible with normal life numbered ... ... 10

At present we are in the dark as to the prevention of such conditions. We do not know whether the mother's body was unable to produce a normal child or whether the body was not supplied with a sufficient quantity and variety of materials for the formation of a normal baby. The latter hypothesis is the more probable one as most of these women had previously born normal children.

| | |
|---|---|
| **Illness of Mother.** | |
| Kidney disease of pregnancy | 4 |
| Had the condition been discovered at its onset these babies might have been saved. | |
| Eclampsia of mother | 2 |
| Remarks similar to those in the preceding paragraph might be applied to these two cases. | |
| Ill-defined illness of mother | 6 |
| These illnesses consisted of heart disease two, influenza one, and three cases of definite lowering of health in which the cause was not ascertained. | |
| **Difficult Labour** | 3 |
| In these three cases the child was probably damaged by difficult instrumental delivery. Induction of labour or Caesarian section might have saved these babies. | |
| Breech presentation with injury to child | 3 |
| Avoidable by ante-natal supervision. | |
| Caesarian section | 1 |
| Ante-partum haemorrhage | 2 |
| Doubtfully preventable. | |
| Congenital syphilis | 1 |
| Placenta praevia | 1 |
| Mother blamed a fall for premature birth | 2 |
| Total | 49 |

In seven cases no home inquiries were made, or information was refused.

Of the 49 deaths of infants under four weeks of age of which we have some knowledge in addition to the mere cause of death as stated on the death certificate, we may say that 13 were probably preventable.

## THE WORK OF THE ANTE-NATAL CENTRES.

During the year 1933, 329 expectant mothers made 1405 attendances at the ante-natal centres. The former figure represents a percentage of 21·1 of the total births notified during the year. The number of women attending the centres for the first time showed a slight increase on last year's figure, the figures being 273 and 268 respectively. The number of attendances made each month at each of the centres is shown in the tables of attendances at the child welfare centres on pages 43 and 44.

220 women who had attended the centres gave birth to children during the year, 196 of these were normal deliveries (including seven stillbirths); 23 required instrumental aid; there were four Ceasarian sections; two induced labours; and two abortions.

The defects found among the women attending the centres were as follows—

| | |
|---|---|
| Anaemia ... | 125 |
| Albuminuria (severe) ... | 3 |
| Albuminuria (slight) ... | 8 |
| Dental caries ... | 21 |
| Varicose veins ... | 31 |
| Vomiting (severe) ... | 13 |
| Vomiting (slight) ... | 45 |
| Raised blood pressure ... | 9 |
| Rheumatism ... | 1 |
| Tuberculosis ... | 2 |
| Cystitis ... | 1 |

In severe cases of varicose veins, bandages were provided.

**Anaemia.** 125 expectant mothers attending the Ante-natal Centres were classified as "anaemic." This must be taken as a general term and does not imply that a blood examination was made. It is simply a convenient expression to denote pallor, flabbiness, and the tired worn-out appearance which so many poverty stricken women present. In some cases the treatment of the condition would be attention to uterine disorders, septic teeth, and similar conditions. In others good food and rest would provide a cure.

The following table shows the number of the pregnancy and the manner of termination of the pregnancy of women attending the Ante-natal Centres.

| | Delivey | | Stillborn | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pregnancy | Normal | Instrumental | Normal | Instrumental | Caesarian Section | Induced Labour | Abortions | Not Pregn't | Not Deliv'd | Left Town | TOTAL |
| 1st | 45 | 11 | 2 | 3 | 1 | 1 | — | 3 | 16 | 4 | 86 |
| 2nd | 44 | 8 | 2 | — | 2 | — | — | 1 | 12 | 1 | 70 |
| 3rd | 35 | 1 | 1 | — | 1 | — | 1 | 2 | 15 | 1 | 57 |
| 4th | 18 | 1 | 1 | — | — | 1 | — | 1 | 14 | — | 36 |
| 5th | 17 | 1 | — | — | — | — | — | 1 | 6 | — | 25 |
| 6th | 13 | — | 1 | — | — | — | — | — | 7 | — | 21 |
| 7th | 7 | — | — | — | — | — | — | 1 | 4 | — | 12 |
| 8th | 4 | — | — | — | — | — | 1 | — | 2 | — | 7 |
| 9th | 2 | 1 | — | — | — | — | — | — | 2 | — | 5 |
| 11th | 4 | — | — | — | — | — | — | — | 1 | — | 5 |
| Totals | 189 | 23 | 7 | 3 | 4 | 2 | 2 | 9 | 79 | 6 | 324 |

There was one maternal death during the year among the women on the register. This woman attended once only when 8½ months pregnant and was referred to her own doctor for treatment.

**Miscarriages. (Wheat Germ Extract).** Animal experiments have made it appear probable that fertility and ability to bear a full time child are closely associated with Vitamin E. Little is known about this vitamin.

Some time ago I asked The Glaxo Laboratories if they could supply a concentrate of this vitamin. After considerable investigation this firm supplied me with a concentrate of Wheat germ oil which appeared to have active properties. Whether the active principle of this concentrate is actually vitamin E is not definitely established but some interesting results have been obtained by its use.

Seven women attending the ante-natal centre whose last pregnancy had terminated in a miscarriage, and who were anxious for a full time live child, were selected and given daily one capsule of the wheat germ extract. The period during which the daily dose was taken varied from three to six months. In each case a full time live child was born.

The number of cases in this series is too small to allow any definite pronouncement to be made as to the efficacy of the wheat germ oil concentrate in preventing miscarriages; but the results are sufficiently interesting and encouraging to warrant a further and more extended trial.

Miscarriages are responsible for much ill health among women and any methods which will reduce their number are worthy of exploration.

Details of the following case are given as they illustrate an unexpectedly good result and are very interesting.

Mrs. R. first attended the ante-natal centre in 1929. She was then eight months pregnant. Examination showed that she was extremely ill, her urine was loaded with albumen and the dangers of eclampsia had to be faced. She was immediately admitted to the Municipal Maternity Home and gave birth to a still born child. She recovered.

In 1930 the same thing happened. A still birth again occurred at the eighth month and the woman again had severe nephritis of pregnancy. In 1931 she had a miscarriage at the third month.

In 1932 a stillbirth accompanied severe albuminuria at the seventh month. The following year she came to the ante-natal centre when two months pregnant. She was warned as to the dangers of repeated pregnancies accompanied by albuminuria and the question of the advisability of terminating the pregnancy was considered The patient was extremely anxious to have a live child and refused to attend, or to obtain outside medical help or advice, unless she was allowed to take the risk of continuing the pregnancy. She attended the centre and was kept under observation, the urine being tested weekly for the first few months and later daily specimens were tested. She was given wheat germ oil extract, advised as to diet and her mode of life. She continued to attend and progressed normally and, at full term, was delivered of a normal and healthy infant.

I make no comments upon this case beyond stating that the woman is fortunate to be alive and doubly fortunate in possessing a healthy live child after suffering from severe albuminuria which terminated four successive pregnancies in a period of four years.

**Wheat Germ Extract and Threadworms.** A chance remark referring to the treatment of intestinal worms in horses caused me to try the effects of the wheat germ oil extract upon children suffering from threadworms. The results were unexpectedly interesting.

The usual treatment of threadworms in young children is not particularly successful and is somewhat difficult to carry out.

An experiment was conducted upon 59 young children attending the Child Welfare Centres who harboured threadworms in the bowel. Each child was given daily one capsule of the wheat germ oil extract for a period of a week (in some cases for a fortnight). No case was so treated unless the mother stated definitely that she had seen living threadworms in the motion. The mother's word had to be accepted when assessing the results.

The results, according to the mothers' statements, were as follows:—

| | |
|---|---|
| Good, clear of worms in from one to two weeks | 34 |
| Not successful ... ... ... ... | 14 |
| No record (ceased to attend) ... ... | 8 |
| Child refused to take capsules ... ... | 3 |
| Total | 59 |

No aperients were given.

Threadworms recurred in some few of the 34 cases reported as cured after intervals of from one to four months.

The mothers reported, in the majority of successful cases, that the nervous symptoms so often associated with threadworms cleared up rapidly.

These results appeared to be so encouraging that I communicated them to Dr. P. Smith of the Newcastle-upon-Tyne Dispensary whom I knew was interested in the problem. He carried out further experiments on similar lines and obtained similar results.

A summary of his results is as follows:—

| | |
|---|---|
| Cases successfully treated with Wheat germ oil extract | 40 |
| Not successful ... ... ... ... ... | 2 |
| No record (ceased to attend) ... ... ... | 39 |

Both Dr. Smith and I found that many of the children gained weight rapidly during and after the treatment. Whether this was due to elimination of the threadworms or to some effect of the wheat germ oil extract we are unable to say.

The mothers were enthusiastic as to the improved general condition of the children.

## SUPERVISION OF MIDWIVES.

At the end of 1933 there were 22 midwives practising in the Borough, including 4 at the Robson Maternity Home and 1 at the Public Assistance Committee's Hospital.

These midwives attended 949 cases as midwives and 167 as maternity nurses during the year. (The former figure includes 307 births attended by midwives in the Robson Maternity Home and the latter figure, 32 births attended by midwives in the Home acting as maternity nurses.)

During the year medical help was sent for by midwives on 449 occasions. The percentage of births attended by midwives in which it was found necessary to call in medical aid was therefore 47·3, or if the cases occurring in the Robson Maternity Home are excluded, 59·6%. The percentage of cases in which medical aid was summoned by a midwife in the Robson Maternity Home was 21·5.

359 accounts were received from doctors in respect of fees for attendance on cases in which they had been summoned by midwives. The total amount of these accounts was £587, a reduction of £131 on last year's figure. In 74 cases or 16% of the cases in which they were called in, notices were received from doctors stating that they considered it necessary to continue attendance on the patient for a longer period than 10 days.

The following notices were received from midwives during the year, in addition to the 449 notices summoning medical help referred to above.

| | |
|---|---|
| Death of child ... | 34 |
| Stillbirth ... | 31 |
| Artificial feeding ... | 20 |
| Laying out dead body ... | 17 |
| Liability to be a source of infection ... | 14 |
| Death of mother ... | 5 |
| Puerperal fever ... | 1 |
| Ophthalmia Neonatorum ... | 1 |
| Pemphigus ... | 1 |
| | 124 |

27 inspections of midwives were carried out during the year.

## ROBSON MATERNITY HOME.

The number of beds provided at the Home is 12. The ordinary fee charged to patients is 35/- for a period of 12 days which is the normal duration of stay. Emergency cases are admitted to the Home from the Billingham Urban District under agreement at a fee of £3 3 0 per week per patient.

In the Ministry of Health returns showing the costs of Maternity Homes, etc., for the year ending March 31st, 1933, the average cost per patient week including loan charges but excluding income from patients, for the Robson Maternity Home was £2 11 11·8. The average income from patients per patient week was 19/6d. and other income 5/3·5d., making a total income of £1 4 9·5d. per patient week. The percentage of beds occupied was 100.

These figures compare very favourably with other municipal maternity homes in the country, both from the point of view of the Corporation and that of the patient

The number of women desiring to enter the Home was again considerably in excess of the number for which accommodation could be found. The lack of an isolation block was the cause of a consderable amount of inconvenience and anxiety to the staff. Alternative schemes for the enlargement of the present home to provide an isolation block and enlage the existing kitchen and laundry which are too small for present requirements, or the provision of an entirely new Home providing greater accommodation, has been under discussion during the year. Various schemes have been considered and although the desirability of providing a new Home with greater accommodation in open surroundings was appreciated, it was decided to enlarge the existing home temporarily.

Information with regard to the working of the Home is summarised below.

| | |
|---|---|
| Number of maternity cases admitted during the year | 355 |
| Average duration of stay ... | 12·96 days |

Number of cases delivered by—

| | | |
|---|---|---|
| (a) | Midwives | 307 |
| (b) | Doctors | 32 |

Number of cases in which medical assistance was sought by a midwife in emergency ... 66

Number of cases notified as—

| | | |
|---|---|---|
| (a) | Puerperal fever | Nil |
| (a) | Puerperal pyrexia | 5 |

Number of cases of Pemphigus Neonatorum ... Nil

Number of infants not entirely breast fed while in the institution ... 5

Number of cases notified as Ophthalmia Neonatorum 1

Result of treatment Cured

Number of maternal deaths ... 2

Cause of death in each case—

(1) Secondary post-partum haemorrhage

(2) Cardiac failure following difficult delivery.
Patient was suffering from nephritis and mitral stenosis.

Number of infant deaths—

| | | |
|---|---|---|
| (i) | Stillborn | 8 |
| (ii) | Within 10 days of birth | 17 |

Cause of death in each case—

| | | |
|---|---|---|
| (i) | Macerated | 4 |
| | Monsters | 3 |
| | Ante-partum Haemorrhage | 1 |

| | | |
|---|---|---|
| (ii) | Prematurity | 8 |
| | Congenital Heart | 1 |
| | Feebleness | 2 |
| | Atelectasis | 2 |
| | Intra-cranial haemorrhage | 2 |
| | Toxaemia of mother | 2 |

## SECTION H.—DISEASES OF ANIMALS ACTS.

**Swine Movement Order, 1922.** During the year 1933, the following licences were issued under the above Order, compared with the figures for the two previous years.

| | Number of Licences issued. | | | Number of Swine moved. | | |
|---|---|---|---|---|---|---|
| | 1933 | 1932 | 1931 | 1933 | 1932 | 1931 |
| Fat Swine | 1,909 | 1,855 | 1,970 | 15,575 | 15,601 | 10,404 |
| Store ,, | 1,672 | 1,781 | 1,334 | 11,006 | 12,322 | 7,932 |
| Totals ... | 3,581 | 3,636 | 3,304 | 26,581 | 27,923 | 18,336 |

Licences issued for the movement of swine out of the Borough were as follows—

| | Number of Licences issued. | | | Number of Swine moved. | | |
|---|---|---|---|---|---|---|
| | 1933 | 1932 | 1931 | 1933 | 1932 | 1931 |
| Fat Swine | 1,637 | 1,189 | 1087 | 13,934 | 11,176 | 6,240 |
| Store ,, | 1,400 | 1,450 | 1045 | 9,362 | 10,309 | 6,572 |
| Totals ... | 3,037 | 2,639 | 2,132 | 23,296 | 21,485 | 12,812 |

Licences received for swine brought into the Borough were as follows—

| | Number of Licences issued. | | | Number of Swine moved. | | |
|---|---|---|---|---|---|---|
| | 1933 | 1932 | 1931 | 1933 | 1932 | 1931 |
| Fat Swine | 188 | 207 | 252 | 1,526 | 1,554 | 2,011 |
| Store ,, | 42 | 38 | 55 | 333 | 200 | 348 |
| Totals ... | 230 | 245 | 307 | 1,859 | 1,754 | 2,359 |

**Swine Fever.** 21 reports of suspected swine fever were received during the year. In 7 of the cases the premises were placed under Form A and in 14 under Form B. The premises were under restrictions for periods varying from one to fourteen weeks.

**Sheep Scab.** Contacts from 5 outbreaks of sheep scab numbering 259 sheep and lambs were exposed in the cattle market, ten weekly markets being affected. The sheep and lambs were all traced and either double dipped or slaughtered.

**Sheep (Movement into Scotland & Northumberland) Order of 1933.** Ten licences, covering 355 sheep and lambs, were issued during the year.

**Importation of Animals Act, 1922.** One consignment of ten head of cattle was brought into the Borough. The quarantine regulations were properly carried out and the animals were eventually slaughtered.

**Importation of Dogs and Cats Order, 1928 and other Quarantine Orders.** Six notifications were received from the Customs Officers of ships arriving with dogs on board, and one carrying a live bird. These were all kept under control during the stay of the vessels and removed on the same vessels.

**Conveyance of Live Poultry Order, 1911.**

**Packing Materials Order, 1925.**

**Movement of Animals (Records) Order.**

**Importation of Meat (Wrapping Materials) Order of 1932.**

**Foot and Mouth Disease (Boiling of Foodstuffs) Order of 1932.**

These Orders have been satisfactorily carried out during the year.

**Transit and General Order, 1917.** The cleansing of cattle trucks, boxes, storage pens and yard has been well carried out by the London and North Eastern Railway during the year.

No cases of Foot and Mouth Disease, Anthrax, Parasitic Mange, Glanders, Farcy, Rabies, or Sheep Pox, occurred during the year.

**Transit of Animals (Amendment) Order of 1931.** The amount collected for the disinfection of vehicles in the cattle market during the year ended December 31st, 1933 was £83 12s. 3d., compared with £86 14s. 0d. in 1932 and £75 2s. 6d. in 1931. The tendency among the carriers is to build larger bodies to their vehicles to carry greater numbers, so that the present charge of 6d. for all classes of motor vehicles is becoming unfair, apart from the greater cost of the actual cleansing of these larger vehicles, and it is desirable that a more equitable scale of charges should be introduced.

**Cattle Market.** The following table shows the number of animals which passed through the Cattle Market during the year 1933, compared with the figures for the preceding two years:—

| | 1933 | 1932 | 1931 |
|---|---|---|---|
| Milch Cows ... | 450 | 544 | 560 |
| Fat Cattle ... | 4823 | 4604 | 4962 |
| Grazing Cattle ... | 273 | 222 | 403 |
| Calves ... ... | 1476 | 1273 | 1010 |
| Sheep and Lambs | 33278 | 30140 | 27500 |
| Swine ... ... | 26581 | 27923 | 16880 |
| Totals ... | 66881 | 64706 | 51315 |

# APPENDIX

## Birth Rates, Deaths Rates and Analysis of Mortality, During the Year 1933

### England & Wales, 118 County Boroughs & Great Towns, 132 Smaller Towns, and Stockton-on-Tees

(Provisional figures The rates for England and Wales, London and Stockton-on-Tees, have been calculated on a population estimated to the middle of 1933, but those for the towns have been calculated on populations estimated to the middle of 1932.

| — | Rate per 1,000 Total Population |  | Annual Death-rate per 1,000 Population. |  |  |  |  |  |  |  |  | Rate per 1,000 Live Births |  | Percentage of Total Deaths |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Live Births | Still-Births | All Causes | Typhoid and Paratyphoid Fevers | Small-pox | Measles | Scarlet Fever | Whooping cough | Diphtheria | Influenza | Violence | Diarrhœa and Enteritis (under 2 yrs.) | Total Deaths under 1 year | Certified by Registered Medical Practitioners | Inquest Cases | Certified by Coroner after P.M. No Inquest | Uncertified Causes of Death |
| England and Wales ... ... | 14·4 | 0·62 | 12·3 | 0·01 | 0·00 | 0·05 | 0·02 | 0·05 | 0·06 | 0·57 | 0·54 | 7·1 | 64 | 90·9 | 6·3 | 1·9 | 0·9 |
| 118 County Boroughs and Great Towns, including London ... | 14·4 | 0·67 | 12·2 | 0·00 | 0·00 | 0·06 | 0·02 | 0·06 | 0·08 | 0·55 | 0·49 | 9·4 | 67 | 91·0 | 6·0 | 2·5 | 0·5 |
| 132 Smaller Towns (Estimated Resident Populations 25,000 to 50,000 at Census 1931) ... | 14·5 | 0·63 | 11·0 | 0·00 | 0·00 | 0·04 | 0·02 | 0·04 | 0·04 | 0·53 | 0·44 | 4·9 | 56 | 91·7 | 5·8 | 1·5 | 1·0 |
| London ... ... ... | 13·2 | 0·45 | 12·2 | 0·00 | 0·00 | 0·02 | 0·02 | 0·08 | 0·08 | 0·51 | 0·58 | 11·6 | 59 | 88·3 | 6·3 | 5·4 | 0·0 |
| Stockton-on-Tees ... ... | 17·9 | 0·76 | 12·72 | — | — | 0·14 | — | 0·07 | — | 0·73 | 0·55 | 6·6 | 96 | 92·2 | 4·8 | 0·7 | 2·3 |

|  |  | Puerperal Sepsis. | Others. | Total. |
|---|---|---|---|---|
| The maternal mortality rates for England & Wales are as follows : | per 1,000 Live Births ... | 1·79 | 2·63 | 4·42 |
|  | „ „ Total Births ... | 1·71 | 2·52 | 4·23 |
| „ „ Stockton-on-Tees | per 1,000 Live Births ... | 0·83 | 5·00 | 5·83 |
|  | „ „ Total Births ... | 0·80 | 4·79 | 5·59 |

## CAUSES OF DEATH IN STOCKTON-ON-TEES, 1933.

| CAUSE OF DEATH | Total | Males | Females |
|---|---|---|---|
| ALL CAUSES ... ... | 852 | 459 | 393 |
| 1—Typhoid and paratyphoid fevers | — | — | — |
| 2—Measles ... ... ... | 10 | 5 | 5 |
| 3—Scarlet Fever ... ... | — | — | — |
| 4—Whooping cough ... ... | 5 | 3 | 2 |
| 5—Diphtheria ... ... ... | — | — | — |
| 6—Influenza ... ... ... | 49 | 23 | 26 |
| 7—Encephalitis lethargica ... | 2 | 1 | 1 |
| 8—Cerebro-spinal fever... ... | 3 | 2 | 1 |
| 9—Tuberculosis of respiratory system ... ... ... | 55 | 30 | 25 |
| 10—Other tuberculous diseases ... | 7 | 4 | 3 |
| 11—Syphilis ... ... ... | 2 | 1 | 1 |
| 12—General paralysis of the insane, tabes dorsalis ... | 1 | 1 | — |
| 13—Cancer, malignant disease ... | 84 | 43 | 41 |
| 14—Diabetes ... ... ... | 4 | 1 | 3 |
| 15—Cerebral hæmorrhage ... | 30 | 12 | 18 |
| 16—Heart Disease ... ... | 147 | 78 | 69 |
| 17—Aneurysm ... ... ... | — | — | — |
| 18—Other circulatory diseases ... | 35 | 24 | 11 |
| 19—Bronchitis ... ... ... | 25 | 16 | 9 |
| 20—Pneumonia (all forms) ... | 80 | 43 | 37 |
| 21—Other respiratory diseases ... | 4 | 1 | 3 |
| 22—Peptic ulcer ... ... | 9 | 7 | 2 |
| 23—Diarrhœa, &c. (under 2 years) | 8 | 3 | 5 |
| 24—Appendicitis ... ... | 5 | 4 | 1 |
| 25—Cirrhosis of Liver ... ... | — | — | — |
| 26—Other diseases of liver, etc. ... | 7 | 3 | 4 |
| 27—Other digestive diseases ... | 25 | 14 | 11 |
| 28—Acute and chronic nephritis ... | 30 | 17 | 13 |
| 29—Puerperal sepsis ... ... | 1 | — | 1 |
| 30—Other puerperal causes ... | 6 | ... | 6 |
| 31—Congenital debility, premature birth, malformations, &c. ... | 68 | 44 | 24 |
| 32—Senility ... ... ... | 29 | 15 | 14 |
| 33—Suicide ... ... ... | 10 | 5 | 5 |
| 34—Other violence ... ... | 27 | 21 | 6 |
| 35—Other defined diseases ... | 79 | 34 | 45 |
| 36—Causes ill-defined or unknown | 5 | 4 | 1 |
| Special Causes (included in No. 35 above)— | | | |
| Small-pox ... ... ... | — | — | — |
| Poliomyelitis ... ... ... | — | — | — |
| Polioencephalitis .. ... | — | — | — |
| Deaths of Infants under 1 year— | | | |
| Total ... ... ... | 116 | 66 | 50 |
| Legitimate ... ... ... | 113 | 63 | 50 |
| Illegitimate... ... ... | 3 | 3 | — |
| LIVE BIRTHS—Total ... ... | 1200 | 647 | 553 |
| Legitimate ... ... ... | 1142 | 618 | 524 |
| Illegitimate... ... .. | 58 | 29 | 29 |
| STILL BIRTHS—Total ... ... | 51 | 27 | 24 |
| Legitimate ... ... ... | 48 | 24 | 24 |
| Illegitimate... ... ... | 3 | 3 | — |

Population ... ... 66,980.